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THE TREATMENT OF PRURITUS AND OTHER HYPERESTHETIC CONDITIONS OF THE VULVA AND VAGINA.

By **Thomas More Madden**, M.D., F.R.C.S., Ed.; Obstetric Physician and Gynecologist Mater Misericordiæ Hospital, Dublin; Examiner Conjoint Board Royal College of Surgeons and Apothecaries' Hall; Consultant National Lying-in-Hospital; Consulting Physician to the Children's Hospital, etc., etc.

Abnormal sensibility of the structures forming or adjoining the external genital orifice, although a symptom common to various diseases, in many cases assumes a distinctive character. In some of these instances this condition may occasion an intensity of discomfort, mental as well as physical, or may give rise to diagnostic and therapeutic difficulties greater than are met with in any other of the so-called minor ailments which come before us in daily gynecological practice. Believing, therefore, that this subject is well deserving of consideration, in the following observations I have grouped together under the above heading my clinical experience of the more common forms of hyperesthesia to which the vulva and vaginal passage are specially liable.

Pruritus Vulvœ.—Of the conditions thus included none come more frequently before us, or may occasion greater trouble to the patient and her medical attendant than pruritus of the pudendum. It is occasionally of graver importance than is generally recognized, as a possible indication of diabetes, uterine cancer, or of a neurotic or neurasthenic constitutional state. Nor is even purely local pruritus of the external genitalia by any means of such trivial consequence as it is sometimes regarded; being, on the contrary, a not infrequent factor in the causation both of nymphomania and of the gravest forms of hysterical or cerebro-nervous disorders.

Etiology.—The causes of vulvar pruritus must, in some instances, be sought in constitutional diseases, which are obviously beyond the scope of the present communication. In a far larger proportion of cases, however, it arises from direct local irritation, such as that resulting from the acrid secretions of the vulvo-vaginal glands, which, in the absence of cleanliness, may possibly become the seat of pathogenic microörganisms. Occasionally pruritus is traceable to serpiginous erosion, neuromata, or to subacute inflammatory diseases of the vulvo-vaginal mucous membrane, as often evinced in cases of vulvitis and vaginitis. In many patients pruritus is an apparently functional and distressing accompaniment of pregnancy; in others, again, it is consequent on the genital hyperemia that ushers in the catamenial periods or which attends the menopause.

Symptoms.—From whatever cause it may result, the pruritus in these cases commence by persistent vulvar tingling or irritation, which speedily develops into a pathognomonic burning, itching, presenting paroxysmal exacerbations, increased by warmth or motion, usually most troublesome at night, and invariably aggravated on the approach of the menstrual periods. On these occasions the local irritation frequently becomes so intense as to almost impel the patient to exemplify the old adage, *ubi dolor ibi digiti*, even when forewarned and fully aware that by so doing she inevitably increases her complaint, the eventual result of which, when not allayed by medicines, may be the development of the hysterical or other cerebro-nervous complications already alluded to.

General Treatment.—It may, perhaps, appear hardly necessary to observe that in dealing with a condition so many-sided in its etiology, the recognition, and, if possible, the removal of its exciting cause, whether constitutional or local, should be the first object of the practitioner. As this is very commonly ignored, I repeat that its practical importance is daily illustrated in cases of pruritus occurring in neurasthenic patients, or in those suffering from diabetes or carcinoma uteri, in which local measures are vainly relied upon, although no possible curative effects can be anticipated from their employment.

If, therefore, vulvar pruritus be traceable to, or is to any recognizable extent coëxistant with, a distinctly marked neurotic or hysterical temperament, our primary attention should be given to the abatement of the constitutional neurasthenia. This is attained by nerve tonics and sedatives, such as hydrobromates of iron and quinine, the bromides and hydrobromic acid in combination with valerian. If the pudendal irritation be symptomatic of uterine cancer, surgical interposition, if practicable, affords the only effectual remedy. If that should be beyond possibility, we must then only fall back on the general palliative treatment available for the relief of incurable uterine carcinoma, together with special local applications. Where vulvar irritations result from diabetes, whilst I agree with Dr. Goodell as to the value of salicylate of soda, I may add that, to be of use in such cases, it should be given in full doses and in the form of the natural salicylate, which therapeutically differs from, and is far more effective than, the foreign and the other synthetically prepared drug, which is now commonly employed under that name.

Local Treatment of Pruritus.—Even in the cases just referred to, in which pruritus vulvæ arises from constitutional causes, much may be done to palliate the symptomatic genital irritation by the use of local agents. These are of much more utility in the relief of ordinary or primarily vulvar pruritus, although even in these, constitutional treatment should generally be conjoined. For the latter purpose, the first point is to secure, as far as possible, the complete asepsis of the affected parts by frequent ablutions with hot water (120° F.), and an antiseptic soap, as coal tar, or one of the newer superfatted soaps. Of this class I have found that made by Burroughs and Wellcome, with ichthyol and lanoline, one of the most useful in these cases. Immediately after this the vulva should be freely swabbed with an efficient germicide solution, as corrosive sublimate (1:1000), boric acid)1:25), izal (1:100), or carbolic acid (1:40). In this way we secure the destruction of any pathogenic microörganisms that may have survived the previous ablution, and so bring the pruritic surface into a condition in which the local sedative application may act effectually.

Of the many topical sedatives that I have used, by far the most serviceable is methylene blue. This remedy I have been employing, not merely locally in the form of a lotion, but also internally, in grain doses in pill form, twice a day, in hospital, during the past session, and with marked benefit in a considerable number of cases. The objection to the employment of methylene blue is the inevitable staining of the parts, as well as of the linen and fingers of the patient, by whom it is applied. Even when administered internally, the rapidly blue-stained urine will soon produce a persistent discoloration of the vulvar structures. This circumstance, trivial as it may seem, I have found quite sufficient to prevent most of the patients from giving it a sufficient trial.

When methylene blue is declined by the patient on the foregoing grounds, or when, as occasionally happens, it fails or ceases to afford relief, we must fall back on some one or other of the older analgesics on which the changes must be rung until either the hyperesthesia subsides or its exciting cause be discovered and dealt with. Of these local remedies, one of the most effective is cocaine, in 5 per cent. solutions in peppermint water, or in the form of a cream made with equal parts of cocaine, chloral, menthol, and camphor, rubbed up in paroline. In some cases an excellent application is a saturated solution of boric acid, as also the long tried combination of hydrocyanic acid with borax and morphine in carbolated solutions of camphor. In many instances nothing appeared to afford such relief as either the ordinary black wash or yellow wash, both of which are more especially applicable in hospital and dispensary practice, where the cost as well as the efficacy of our remedies must be taken into consideration.

Vulvar Neuromata and Serpiginous Erosion.—Hyperesthesia of the vulvar area and vaginal orifice may, independently of pruritus, arise from the presence of highly sensitive red vascular spots and distinctly neuromatous papillæ, which are often thickly scattered throughout the vulvar mucous membrane. These commonly occasion much local irritation and acute pains on the least touch, and are amongst the frequent causes of dyspareunia as well as of pruritus. In the treatment of this condition, the surgical removal of all these neuromatous spots, as well as of the hypertrophied and inflamed papillæ was formerly regarded as essential. This view is, however, dispelled by the more correct modern doctrine that the complaint is the result of a progressive serpiginous erosion passing in succession from one part to an adjoining portion of the vulvo-vaginal mucous membrane and entirely beyond relief by excision of the affected spots. In this as in other forms of vulvar pruritus, we must be content to rely chiefly on the methods of treatment already referred to.

Vaginismus.—Although it would be impossible within the limits of this communication to discuss in detail the condition of abnormal sensibility of the vaginal orifice and adjacent parts producing such spasmodic contractions of the sphincter vaginæ as to form an impediment to marital intercourse, or dyspsareunia; yet this subject cannot be altogether ignored. In such cases the local hyperesthesia is generally evinced on any attempt at examination, being most marked about the meatus urinarius and in the vicinity of the vulvo-vaginal glands and fourchette, whence the hymen, if present, projects upward.

In my opinion the best general explanation of its symptoms may be found: (1) In the hysterical temperament of the majority of those affected. (2) In an abnormal condition of the pudic nerve, one branch of which runs along with the artery to the clitoris, whilst the other, or superficial perineal nerve is distributed to the perineum and labia in which its terminal branches ramify.

Treatment of Vaginismus.—The two points just referred to, viz: the general association of hysteria or neurotic symptoms with vaginismus, and the abnormal condition of the pudic nerve in such cases will supply the best key to general treatment. The importance of the neurotic element in its causation and management is too commonly lost sight of in this as in many other gynecological disorders. The best results will be secured by combining that constitutional treatment, which I have elsewhere very fully described, with the no less essential local measures that are therein indicated. In the local treatment of the great majority of cases of vaginismus, the most successful results may be obtained from forcible mechanical dilatation of the vulvo-vaginal orifice and passage, so as to secure thorough nerve stretching or even to produce some slight rupture of the fibrillæ of the affected nerves.

The steps of the operation are as follows: The patient, properly prepared in the usual way for an antiseptic vaginal operation, and her bladder and rectum being evacuated, is etherized and placed in the left lateral semi-prone position. A large sized Graily Hewitt, or other bivalve speculum is then introduced and the blades expanded to the fullest extent. A tampon of antiseptic cotton, or wood wool, saturated in boracic glycerine is next passed in through the speculum so as to fill its caliber from the center to the roof of the vaginal vault. The speculum, still widely expanded, is then forcibly withdrawn so as to overcome the contractility of the vaginal walls, which in so doing are usually slightly abraded, thus at the same time thoroughly stretching or slightly rupturing the affected nerve fibers. Any hemorrhage occasioned by this procedure will be controlled by the tampon, which is to be retained in the vagina by counter pressure during the removal of the speculum, and then left *in situ* for at least 24 hours to maintain the patency of the passage. When this tampon is taken out, the vagina should be immediately irrigated with some antiseptic solution. If any trace of vaginismus, or spasmodic contraction, should subsequently remain, the same course may be repeated until the vaginal canal has regained its normal sensibility and capacity.

In some exceptional instances that curative result may not be thus readily attainable, and it may be necessary to resort to the removal of any specially hyperesthetic tissues in the vicinity of the hymen, or to some of the recent modifications of Sims' or Emmett's operations for vaginismus. These procedures will, however, in my opinion, seldom be required by gynecologists who adopt the comparatively simple and generally successful method of treatment which I have just described.

55 Merrion Square.

MUSCULAR ATROPHY CONSEQUENT ON CERTAIN ARTICULAR LESIONS.

By W. L. Moore, M.D., Assistant, Neurological Clinic, Cooper Medical College, San Francisco.

Read before the San Francisco Medico-Chirurgical Society.

A few weeks ago a gentleman came to me for treatment, with a history which seemed of considerable importance, as it presented the symptoms of those not infrequent, yet sometimes, obscure cases of muscular atrophy consequent on certain articular lesions.

I very much regret being unable to show you the case from which my notes have been taken. The patient had promised to be here this evening for your inspection, which I feel certain would be far more instructive than any paper I could prepare on the subject. His absence is still more regretable, as my notes have been prepared with the view of delineating by a methodical examination, the characteristics of the disease.

It is a well established fact that the most diverse lesions may induce muscular atrophy. I shall, however, in this paper consider only those atrophies resulting from articular lesions, especially the traumatic form.

From its origin the case of this patient may be called surgical, since it was from a slight traumatism that the present trouble originated. But from this traumatism was produced a spinal affection, of a particular kind, which still persists, although for many months the arthritis, the immediate consequent of the traumatism, has ceased to exist.

Michael D——, æt. 50 years, native of Ireland, occupation laborer, has always been healthy and has presented nothing worthy of note in his own or antecedents' family histories. His general condition is excellent; his appearance vigorous; appetite good, and all the organic functions are well performed. A few years ago patient began to be troubled in his power of locomotion. The affection from which he now suffers consists almost exclusively in a difficulty in walking, and it is the function of the left inferior extremity, or rather of certain muscles more than that member, which are at fault.

A methodical examination showed me that when he was in a recumbent position, the left inferior extremity executes, normally, all its movements except extension of the leg and thigh; the isolated movements of the foot, the flexion and extension of the foot on the leg are free. When he wishes to extend the leg placed in semiflexion, he contracts the extensors of the leg and thigh by sliding his heel along the plane of the bed, as he helps to extend the member with his hands or with the other foot. It is then the extensors of the leg and thigh which are at fault. The patient opposes, although with less force than with the sound limb, the attempts of extension or of flexion made from the joint of the foot; he resists also quite well when you try to straighten the flexed knee or hip, but he opposes only a feeble resistance to forced flexion of leg and thigh. This paresis manifests itself when the patient gets out of bed on the right side and undertakes to walk. In order to do this he raises the left leg by aid of the right foot. He walks without a cane, but there is something strange in his mode of progression. While at each step in advance the right member bends, then extends, there is hardly any attempt at flexion or extension of the affected one; the left lower extremity, too long, as it were, performs a movement of circumduction, as if it were all of one piece. There is no pain on movement, except in forced adduction of the thigh, so that the difficulty in walking cannot in this way be explained. The joints are all perfectly free. It is, then, in the nervous system or in the muscles we must look for the cause of the motor impotence.

An attentive examination of the affected limb detects a number of important particulars. There is, first, a diminution of the entire member, which was formerly very pronounced. Mensuration gives at upper part of thigh, L. 41 cm., R. 50 cm. Above knee, L. 33 cm., R. 35 cm. Calf, L. 35 cm., R. 36 cm. Even without this it is easy to see that the left extremity is considerably diminished in size. The different groups of extensors are excavated, as it were, and the muscles of these regions are flabby, and lack their usual plumpness even at the moment of contraction. There exists, then, not only a paresis, but also a modification of the nutrition, an atrophy of the extensors. The affected extremity seems also to be colder than its fellow, but without marked change of cutaneous sensibility. To complete the description I shall give the result of electrical examination, which shows the state of nutrition of the muscles.

At the time this patient presented himself for treatment, galvanic and faradic excitation of the crural nerve at the fold of the groin gave scarcely any contraction, over the points of election; faradization with a strong current produced scarcely any reaction. You would, therefore, have expected to see galvanization provoke reaction. When the nutrition of the muscles is profoundly affected, as after experimental section of the nerves, or in infantile paralysis, when there is destruction of the motor cells, or in grave cases of facial paralysis, we have the "reaction of degeneration." Galvanic excitability is exalted at the same time there is absence or weakening of faradic excitability. In this case, however, the galvanic current, even with 50 elements, whatever might be the disposition of the poles, gave no more—indeed, scarcely as much—contraction as the strong faradic current. There was, then, a quantitative and not a qualitative modification of the reaction. We might think from this that we had a case of simple atrophy, not atrophy of degeneration.

Rumpf has studied the electrical reactions of the muscles in cases of joint affections, the results of which, confirmed by Erb, are that in these cases there is a simple diminution of the electric excitability, and never any qualitative modification. This absolutely distinguishes muscular alterations from degenerative atrophy.

Charcot says: "What is moreover remarkable, these muscles, which remain almost inert under the influence of the will, or that of electric excitation, direct or indirect, by faradic or galvanic excitation of the nerve, contract quite energetically when, on placing the patient on the stool of a static electric-machine, a spark is generated over the affected muscle." It now remains to search for the reason and the signification of these phenomena. This patient is affected with a paresis with simple atrophy, almost exclusively localized in the extensors of the leg and thigh, with profound modifications, quantitative only, of electric excitability. The localization of the disorders already suffices to guide us to a diagnosis.

We know that atrophic paralysis of the extensor muscles, or at least predominating in the extensors, is a frequent complication of different spontaneous or traumatic lesions affecting the corresponding joints. Thus, we sometimes find the glutei muscles atrophic as a sequel of the arthrites or of sprains of the hip joint and after the experimental injection of irritative substances into the joint. In these cases atrophy, which has all the features of simple atrophy, without any irritative characters, supervene very rapidly.

We meet with a similar traumatism in the history of our patient, and it is not necessary to go farther to find the cause. Charcot cites a case in which "the physicians who attended him appeared astonished at the contrast which existed between the arthritis, seemingly very slight relatively, but little painful, and the motor impotence which was so great. A silicate bandage, kept on for 3 weeks, did not improve matters, and when the retentative was removed there was the same contrast, the same surprise of the physicians, who could not understand how, coincident with a painless arthritis, such pronounced motor impotence could exist. It was not until 4 months after the injury that a treatment appropriate to the situation, viz., faradization, was employed; it was then, only, that an amendment took place, and that walking became less difficult." The same benefit followed in the present case after a few weeks' treatment, although it is of much longer standing.

The relations between these persistent pareses and a slight traumatism producing only a trifling degree of arthritis, should not surprise us, if we consult the natural history of atrophic paralyses, which may be called articular or which have an articular cause. Thus, a simple sprain, soon to all appearances well, a simple hydrarthrosis, an affection not inflammatory and not painful, and a slight arthritis, may determine the same troubles. There is no necessary relation between the intensity of the joint affection and that of the paralytic and atrophic phenomena.

As for the permanence of the deuteropathic accidents (paralysis and atrophy) after the cessation of the protopathic affection (arthritis), persistence is, to a certain extent, the rule. We have here in the history of paralysis of articular cause a fact of the greatest interest from a pathological and from a clinical point of view. Most authorities agree that the joint affection has, by the medium of the irritated articular nerves, reacted upon the spinal center, modifying the centers from which emanate the motor nerves and the nerves presiding over muscular nutrition. There exists, it is believed, in the spinal cord a relation more or less direct between the cells of origin of the articular centripetal nerves and those of the motor and trophic nerves of the extensor muscles.

This result, when it is produced, is constant; thus, always in the case of irritation of the nerves of the knee, for instance, it is upon the triceps, or at least more especially those muscles, that the atrophy falls. The irritation starting from the articular nerve may spread by diffusion to other groups of muscles than those directly acted upon, though it predominates in the extensors. A propagation of the articular inflammation by contiguity and continuity to the muscles in the neighborhood has been suggested; but the atrophy exists in the same degree throughout, and experiments show that it is a simple atrophy, without myositis. The hypothesis of atrophy by prolonged disuse is inadmissible, since the joint affection is usually so slight as to necessitate rest of but very short duration; besides, how are we to explain the almost exclusive localization of the atrophy in the extensors by this theory? We are thus reduced to a deuteropathic spinal affection, in consequence of which the paralysis and atrophy are produced. But in what consists the modification of the medullary center? It cannot be a profound change in the cells of the anterior horns, as in infantile paralysis, for there we have the reaction of degeneration, which is absent here unless the affection is so far advanced that the muscle is quite destroyed.

We must, then, have to deal with a sort of inertia or torpor of the cellular element. We may, therefore, conclude that if in a case of this kind we have recourse at the onset to appropriate treatment, we will obtain favorable results. Prof. Charcot says: "We have a dynamic spinal lesion, without profound modification, so far as we know, and we may safely insist upon the electric treatment." In this case the results already obtained are encouragement for the future. As to the kind of electricity, we may choose between franklinism, faradism, or galvanism, or we may employ each in turn, as has been done in this case, with favorable results.

997 Market street.

CYSTITIS AND HYPERTROPHY OF THE PROSTATE.

By T. A. SNIDER, M.D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

Amongst the diseases of the urinary organs that we encounter in general practice, cystitis, or inflammation of the bladder, is one of the most common. If the patient has had a severe stricture, an enlarged prostate, a vesical calculus, or kidney trouble, sooner or later he will have a cystitis, and the symptoms of this complication will be the most prominent in his disease. In fact, we rarely meet with an "idiopathic" cystitis, the antecedent trouble being usually ascertainable.

Cystitis occurs in two very distinct forms, the acute and chronic; the former being severe and dangerous, the latter much less so. The milder form is common enough. There is reason to believe that the neck of the bladder is the part mainly affected. Many of the cases that are called cystitis are really prostatitis, or inflammation of the prostatic urethra, extending to the vesical mucous membrane. Anatomically the connection is such that we cannot make a distinction, and we are accustomed to speak of these cases legitimately as inflammation of the neck of the bladder.

The symptoms of this affection are frequent and painful micturition, aching pains above the pubis, extending to the loins. The urine becomes milky or cloudy from an increase of the natural mucus of the bladder. Sometimes constitutional symptoms accompany the attack.

The treatment of these cases requires mild laxatives, diuretics, demulcents, hot hip baths, and the use of the fluid extracts of buchu, triticum repans, etc. Anodynes may be required, and of these belladonna and opium are most suitable. The bromide and acetati of potash and boracic acid are also useful. In a few instances I have found oxalic acid, in ½-grain doses every 4 hours, to give speedy and permanent relief to the vesical irritability.

Prof. Guyon, of Paris, says it is now certainly an established fact that cystitis can be produced only by the intervention of a microbe. A microbe certainly plays the most prominent part in the production of cystitis, but its presence alone is not sufficient to produce the disease. The bladder will remain indifferent to the presence of the most virulent microörganisms and will continue so just as long as the mucous membrane has not undergone such modifications as to allow of these microörganisms fixing themselves in it and propagating. There will be no cystitis as long as the bladder is able to empty itself, and if there is no retention there will be resistance to infection.

The etiology, then, of cystitis is that urinary retention is the most important factor, and while there are other sources of obstruction, hypertrophy of the prostate is the most frequent, and one which affects the majority of elderly people. Out of a large number of dissections of persons from above 54 to 55, made by Sir Henry Thompson, 1 in every 3 exhibited enlarged prostate, but about one-half of them have symptoms of the complaint and about 1 in 10 require treatment for it.

This organ is composed of two lateral lobes and a median portion. The size of the enlargement has but little to do with the results in relation to micturition. I examined a patient, a few years since, whose prostate was as large as a goose egg, and yet the obstruction did not cause very serious trouble. On the other hand, a small prostate may cause severe symptoms. The part affected is the factor influencing the results. A small middle lobe will more frequently form a valve almost closing the internal orifice of the urethra, while a very large lateral increase leaves this orifice practically unobstructed.

The effect on the bladder of obstruction to urination is of a twofold nature. On the one hand, we have dilatation, with atrophy of its muscular structure, and consequent loss of expulsive power. On the other hand, there is hypertrophy of its muscular apparatus answering the call for increased exertion. When dilatation occurs we have the condition known as atony of the bladder, the organ becoming a thin, flabby bag. When hypertrophy has been established, we have the contrary condition, which consists in irregular enlargement of the muscular bands, between which are formed diverticuli, or pouches, which under urinary pressure become thinner toward the external surface. In these the urine remains. It is in these cases that we often see the most severe forms of cystitis. The reason is the inability of the bladder to empty itself, and, as a consequence, pus and mucus and decomposing urine remain in the bladder as a source of constant and increasing trouble. The latter part of the urine voided in these cases is made up of such tough, stringy mucus and pus that it will only flow through a very large-eyed catheter.

Many persons with urinary obstruction going even to the point of retention and an overflow bladder, may escape cystitis for months, and even years, but they are always in danger of renal insufficiency.

Although the kidneys are not ordinarily the seat of sufficient pathological changes to produce death, yet this is likely to ensue under very slight provocation from suppression of urine or urinary fever and their consequences.

Of the cause of hypertrophy of the prostate, but little is known. Exposure to cold, venereal excess, etc., have been suggested, but the most plausible is that advanced by Dr. Watson, viz: that a certain number of people are prone to one variety or another of fibrous degeneration, and among the forms which this tendency assumes is prostatic hypertrophy.

In the treatment of hypertrophy of this organ, all efforts to reduce it to its original normal condition have been fruitless. Everything in the materia medica that promised any chance of success has been tried, but to no avail. This condition of the prostate resembles that which affects the tonsils which are subject to similar changes. From exposure to cold we may have temporary congestion of the surrounding tissues, and this, by the use of proper means, can be relieved, but nothing known to the profession will diminish or reduce the hypertrophy. To prevent congestion of the prostate, the patient should be instructed to avoid sitting upon cold seats, to keep the lower bowel free by gentle laxatives and enemas of hot water. Hard fecal accumulations in the rectum will greatly increase the discomfort of the patient, and should be strictly avoided.

While treatment directed to the cause of the malady is fruitless, much can be done in a palliative way toward relieving the result. The most important factor to be overcome is the presence and increasing amount of residual urine. To rid the bladder of this unnatural load and to allow it to empty itself completely, constitutes the most important feature, and the use of the catheter is the most important element in the treatment.

The precise period when we should begin the use of the catheter is altogether arbitrary, and depends upon the symptoms of the patient. If he complains of frequent calls to urinate, and if his rest is disturbed more than once or twice during the night, and if there be dribbling and involuntary flow of urine, miscalled incontinence, I always advise the use of the instrument once to three times during the 24 hours. If the amount of residual urine is not considerable, and the nocturnal calls not more than twice, and if there be no cystitis, the use of the catheter just before retiring and once during the day, will suffice. In severe cases of cystitis, however, it may become necessary to use the instrument every four or six hours.

All authorities urge the greatest caution in the use of the catheter. In the first place the greatest cleanliness must be observed and antiseptics used as often as the instrument is passed. Dr. Watson says this point cannot be too strongly urged, for in spite of the warnings and teachings scattered through all the literature on prostatic hypertrophy, against the practice of drawing off suddenly a large amount of residual urine, with a catheter which is not thoroughly clean, such remains the bad and frequent practice with many physicians. While in many cases there may be no trouble from the procedure, every year a certain number of deaths may be directly attributed to this cause.

Certain precautions are very essential to insure safety and to avoid accident of a serious nature. When a patient has a large amount of residual urine, and when the bladder is greatly distended, it is not safe to draw off all the urine immediately. A small portion should be withdrawn at intervals, sometimes replacing this with one or two ounces of a warm solution of boracic acid. While it is much easier to withdraw the urine in the standing position, fatal syncope has been known to occur, and Sir Henry Thompson recites a case in which the surgeon was prosecuted in a court of justice for manslaughter, in relation to such an occurrence. Extreme and continued distension of the bladder for 36 or 48 hours, will sometimes destroy or permanently diminish its contractile powers, and the practice of delaying the use of the catheter for the purpose of relieving the congestion by baths, opiates, etc., may result in serious mischief to the patient.

If internal treatment is required, where the catheter is systematically used and the urine not allowed to accumulate in the bladder, the the mineral and vegetable diuretics can be used with anodynes when indicated. The latter, in the form of belladonna, hyocyamus, and opium, can be more effectually used in suppository, especially when there is severe tenesmus.

In the local treatment of cystitis, I have followed the method recommended by Sir Henry Thompson, viz: the injection, after emptying the bladder, of 2 to 4 ounces of the fluid selected, at one time, letting it run out again at once, and repeating this process until the returning fluid becomes clear. This should be done in the gentlest manner possible, in imitation of nature's method of passing the urine through the ureter into the bladder. All bladder washes should be used warm, and I have often thought additional benefit accrued from using them at a higher temperature. Of the drugs used for injection, the first and one of the best is boracic acid in 4 per cent. solution. Nitrate of silver, 1 to 2 gr. to the ounce; acetate of lead; nitric acid, 1 or 2 m. to the ounce of distilled water. In cases where the urine is foul, carbolic acid, 1 to 2 drops to the ounce of distilled water is often useful.

Some authorities of high standing recommend nitrate of silver in very strong solution. Dr. H. Gardner says: "The writer can vouch for the effects and safety of solutions of from 20 to 40 grains to the ounce." One ounce of the solution is injected slowly, and after a few minutes is permitted to escape. It causes severe pain for a short time only.

Seventh and K streets.

SYMPHYSIOTOMY; WITH A REPORT OF A CASE.

By GEORGE GROSS, M.D., San Francisco, Cal.

Read before the California Academy of Medicine.

On the 14th of last May I had a case of labor which gives me the opportunity of bringing before you the interesting question of symphysiotomy. However interesting the historical study of this operation may be—and, indeed, there is perhaps no question in medicine of which the history is more interesting to follow than the phases through which this operation has passed—I shall only give a few data, and dwell more especially on experimental and clinical points.

Originally a French operation advocated by Sigault, in 1768, and for the first time successfully performed by him in 1777, symphysiotomy obtained much notoriety for a time, then fell into discredit under the criticism of Baudelocque and others, and was almost given up for a whole century, when the persistent efforts of the Neapolitan school and the brilliant results obtained—thanks to the new era of antisepsis, by Morisani—created an irresistible revival, especially since 1890.

In November, 1891, Spinelli, Morisani's disciple, gave a full description of the doctrine of his master, illustrating it by an experimental operation at the Baudelocque Hospital at Prof. Pinard's clinic in Paris. In January, 1892, Spinelli published the record of 24 cases operated upon in the obstetrical school of Naples, with the saving of 24 mothers and 23 children, some of the patients having twice undergone the operation. These statistics contrast most favorably with the former records of symphysiotomy, before the application of antiseptic principles. The following are the conclusions of Spinelli:

1. A fetus at term and well developed can be delivered by symphysiotomy from a deformed pelvis with a conjugata vera of at least 6.5 cm., that is a pelvis, which, in the opinion of the accoucheurs of all countries, would be intractable to anything but embryotomy or cesarian section.

2. That any case of contracted pelvis can be treated by symphysio-

tomy, provided the operation be carried out with due antiseptic precautions and the foregoing limits be observed.

In a later lecture comparing embryotomy, cesarian section, and symphysiotomy, although doing justice to the good results obtained for the mother by the basiotribe, and for both mother and child by the cesarian section, in such clever hands as Leopold's, Prof. Pinard thinks a less cruel solution to the difficulty ought to be found in symphysiotomy within proper limits.

Before speaking of the indications and counter-indications for symphysiotomy, I shall mention some facts established by experiments and observations made in animals. Duncan says that in animals the modifications in the articulations of the pelvis during gestation and labor are much more marked than in women, and that in the female of the guinea pig, at the time of parturition, there takes place a considerable separation of the pubic bones; the ligaments in these small quadrupeds undergoing a distension of about 25 mm. (nearly 1 inch); once the labor is over, the pubis becomes again intimately united. Pfitzner observed a normal separation of the symphysis in the female of the hedge-hog; Kehrer noticed the same fact in mice; Breslaw in rabbits, and Barlow even claimed so in cows.

It has long been known that in women, in certain cases during and after parturition, a separation of the pubis can take place. Pinard mentions a case which illustrates this point: He had occasion to perform extraction by forceps on a woman with a contracted pelvis. While carefully guiding, with one finger only, the rotation of the head and the forceps, he suddenly heard a cracking noise. After delivery, as the child's head showed no signs of injury, he made a vaginal examination, and discovered to his dismay that the pubic arch presented a solution of continuity, admitting two fingers. Six weeks later, without the use of any appliance, the patient left the hospital, walking as well as she did before her confinement. This same woman was delivered at her next confinement at full term by natural forces without accident. Ohlschlaeger records a similar case in 1893.

Regarding experiments on the human subject, since Leroy and Camper of Sigault's time, the results have not varied much, and Morisani confirms the results given by Leroy. Sigault, who experimented less than Leroy, had found that the operation produced a separation of the pubis of 1 inch and a few lines only; but Leroy showed that the separation varied with the different subjects; that for each inch, or 27 mm. of pubic separation, the sacro-pubic lines are increased by two lines (5 mm.), so that for 2 ins., or 54 mm. of inter-pubic distance, the sacro-pubic lines will gain 5 lines, or 12 mm. for 2½ ins., or 67 mm., 18 mm. and for 3 ins. nearly 1 inch.

Leroy claimed that a separation of 2½ ins. was easily obtained; and he adds that in two cases where he operated successfully, the separation had reached 3 ins. (81 mm.).

The experiments carried out conjointly by Pinard, Farabœuf, and Varnier, show that in a contracted pelvis of a woman who died of nephritis 9 days after delivery with a conjugata vera of 10.8 cm., with separation of the pubis to the extent of 6 cm.; this pelvis of 10.8 became a pelvis of 12.4 cm., an increase in the antero-posterior diameter of 14 mm., or about ½ in. Upon inspection they found that the powerful posterior ligaments of the sacro-iliac articulation had not suffered any injury, while the thin anterior ligament was only stripped from the anterior aspect of the iliac bone, and the articulation slightly distended anteriorly. On removal of the wooden index, which stretched the pelvis, the joint resumed its normal position. The second experiment is still more interesting. On the pelvis of an old woman a separation of 3 cm. of the symphysis did not even produce any stripping of the anterior ligament of the sacro-iliac articulation. In general after a separation of 3 cm. the sacro-iliac articulation opens anteriorly, usually one joint resisting more than the other, while the stripping only occurs on the opposite side.

From the foregoing we know that by symphysiotomy we can obtain a marked increase in the capacity of the pelvis without inflicting any serious injury; that the degree of this enlargement will be sufficient in many cases of contracted pelvis, and that the results of the operation affect neither the consolidation of the pelvis, the walking powers, nor the progress of future pregnancies. Pinard's experiment on a pelvis with a 10.8 cm. conjugate transformed into a conjugate of 12.4 by a separation of the pubis of 6 cm. shows the wide range of possibilities opened by symphysiotomy, and, if we bear in mind that the fetal head, once engaged in the brim, the parietal protuberance (or the temporal in the after coming head) may project into the interpubic space, we get a virtual gain of another 6 or 8 mm., making a total of about 20 to 22 mm. (6 to 7 lines) in the antero-posterior lines, while there is an increase in the transverse and oblique diameters of between half and one quarter of the interpubic space.

The biparietal diameter of a full term fetus, being 95 mm., reducible to 90 mm.—say 3½ ins., delivery will become possible with a contraction of not less than 67 mm., or 2½ ins., and easy with one of 70 mm. The lowest limit generally adopted is a conjugata vera of 67 mm., or 2½ ins., some going as low as 65 mm. The highest limit varying between 80 and 85 mm. for the sacro-pubic diameter. A transversely contracted pelvis, a kyphotic pelvis, a pelvis with a pronounced anterior curve of the coccyx, an abnormally long symphysis, constitute even stronger indications for pubic section than the antero-posterior contracted pelvis. This also applies to cases of moderate general contraction, and lastly to cases where with a normal pelvis there is an abnormal development of the child. The following are the indications given by the most illustrious representatives of the contemporary Italian school—Novi and Morisani. These authors differentiate between women at full term and those who are not:

1. With the woman at full term: When the antero-posterior diameter measures 95 mm. (3¾ ins.), the forceps will suffice. According to Novi, when below 88 mm. (3½ ins.), you may try the forceps; if you fail, you must do symphysiotomy, for which operation he goes as low as 54 mm., or 2⅛ ins: Morisani places the highest limit of symphysiotomy at the same as Novi, but with him the lowest limit ends at 67 mm., about 2½ ins.

2. With the woman not at term: Both authors agree in inducing premature labor. With a pregnant woman in the seventh or eighth month with a contracted pelvis, science and conscience ought to make you give the preference to premature labor; when the conjugata vera is less than 67 mm., or 2½ ins., Morisani stands by the cesarian section. When the child is dead, of course craniotomy is preferable.

It has, however, been established by good authorities that symphysiotomy is the better procedure, when in a breech presentation the head is stopped at the brim, whether the fetus be alive or dead. This brings me to the case I had to deal with. The woman, a secundipara, 30 years old, of rather small build, was first confined about 18 months ago; the presentation then was also a breech, and prolapse of the cord caused the early death of the fetus, which was extracted, however, without injury to the mother. In the present case, after the breech had been brought down, progress became impossible, the head resting over the brim of the pelvis; the child had succumbed, and all attempts at extraction with moderate force soon proved the futility of further efforts in this direction. It became, then, almost self-evident that the easiest way to get out of the difficulty was by symphysiotomy.

With the assistance of Dr. Campbell I performed the operation, under proper antiseptic precautions with an ordinary blunt-pointed, slightly curved bistoury, with the left index as a guide behind the symphysis. I could easily get through the joint which yielded, somewhat, before section of the triangular ligament, but separated at once after its division to the extent of about an inch, so that extraction was very easy, the head following with a very slight traction. An iodoform gauze tampon readily stopped the slight venous hemorrhage;

the only difficulty met with was the rather high incision above the pubis, over the brim of which the fetal head had been so long projecting. The wound was united with silk worm gut, and a gauze tampon left behind the symphysis. A tight binder was applied until next morning, when the patient was placed in a properly padded trough.

Thanks to antiseptic principles applied during the puerperal state no complications occurred. After a week's time the woman could empty her bladder, and on the tenth day as the trough felt too hard the pelvis was steadied with sand bags. On examining the symphysis about that time, I found a perfect juxtaposition of the pubic bones. When three weeks had passed it was impossible to keep the little woman in bed any longer. I then obtained by pelvimetric measurement the following figures:

Interspinal, 21 cm. (8¼ ins.); average normal, 25 cm. (9¾ ins.).

Intercristal, 22 cm. (8¾ ins.); average normal, 28 cm. (11 ins.).

Conjugate external, 16 cm. (6⅝ ins.); average normal, 21 cm. (8¼ ins.).

Inter-trochanteric, 26.5 to 27 cm., (10½ ins.); average normal, 31 cm. ($12\frac{3}{16}$ ins.).

Conjugate diagonalis, 8 cm. (3¼ ins.); average normal, 13 cm.

Conjugate vera, 8–1.5=6.5; average normal, 11 cm. (say about 2½ ins.).

I regret being unable to give the measurements of the fetus, but it had disappeared before I had a chance to take them. In examining the condition of the symphysis I followed Dr. Dickinson's method, which consists in testing the joint for motion in an up and down direction, with the patient standing and swaying her weight from foot to foot, and also for motion backwards and forwards while walking. All I could find was slight motion in an up and down direction while the woman was swaying from foot to foot. Dickinson says that the amount of motion in the joint in his case at the end of a few weeks, was not greater than is found in many hard labors, and after many easy ones. Of course the result in my case, I must admit, was not entirely satisfactory, as it ought to have been possible, with perhaps a prompter decision to have saved the child as well; but the little woman has not given up hopes, and next time I trust I shall be more watchful, and I hope more successful.

I trust that having drawn attention to the resources to be found in symphysiotomy, its indications may be borne in mind. Strange as it may appear, in our American text-books, in Lusk's late edition of 1892, as well as in Reynolds's, you will look in vain for the word "symphysiotomy," notwithstanding the efforts made by Harris, of

Philadelphia, in his publication on this subject as early as 1883, and as late again as October, 1892. Although the first symphysiotomy performed in the United States dates back only to March, 1892, and was done in an Alabama mining town by Dr. Coggin, now of Athens, Ga., who had learned of the results of the Neapolitan school from an Italian physician he met at Heidelberg, yet, during the year 1892, the operations are already numbered by scores, and they are becoming more and more frequent in all countries; even Leopold, of cesarian fame, having adopted the method.

Accidents, however, are liable to happen, even in good hands, and future statistics will show what dangers it implies for the mothers. Permanent separation of the pubis has been observed; tears of the bladder have occurred with consecutive fistulæ, but serious accidents, such as gangrene and rupture of the bladder, may be the consequence of too persistent and unsuccessful applications of the forceps. Therefore it is recommended to ascertain beforehand the condition of the symphysis, and to make as exact measurements of the pelvis as possible.

236 Kearny street.

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A FEW POINTS ON APPENDICITIS.

By B. W. RODGERS, M.D., Oakland, Cal.

Read before the Alameda County Medical Association.

There is probably no disease in surgery which has attracted such wide attention during the past year as appendicitis. Many very able articles have been written; therefore it is with some hesitation that I attempt to present this evening a few points on this subject.

About 60 years ago Albers, of Bonn, gave a description of what is now known as appendicitis, under the name of typhlitis. The earlier observers had, therefore, mistaken the effect for the cause. It is not strange that mistakes like this occurred, for it is no easy matter to determine whether the primary seat of the inflammation is in the appendix or in the cecum, or whether the early inflammation invades the post-cecal connective tissue, causing a burrowing abscess. It is especially hard to determine this point in cases of a catarrhal nature.

Only recently have typhlitis and perityphlitis been considered as directly associated with appendicitis. They are probably always the result of appendicitis. The exceptions to this rule are extremely rare, so much so that I believe they may be ignored with perfect safety to the patient.

"Hecktoen, of Chicago, found 15 per cent. of adhesions in 280 autopsies on persons who died from other causes. Other pathologists have found from 3 to 36 per cent., showing that a very large percentage of patients do recover from appendicitis without operative interference. Treves says 80 per cent. recover spontaneously, while Talamon maintains that 90 per cent. recover without operation."

I can hardly agree with some who state that all cases of catarrhal trouble about the intestines are appendicitis, for I believe that there are many diseases in this region that are infective that do not reach the appendix.

According to Fitz's statistics over 50 per cent. of the cases occur before the twentieth year, and 60 per cent. between the sixteenth and thirtieth years. It has been met with as early as the seventh week, but it is rarely seen prior to the third year. Matterstock, in a series of 146 cases in adults, found 9 caused by foreign bodies and 63 by fecal concretions. In the remaining cases no such condition was found. It is very much more common in males than in females, about 80 per cent. occurring in the male, although the age is usually the same in both sexes.

General peritonitis is an uncommon disease, unconnected with appendicitis, especially in men and boys. Of course we find general peritonitis in the female from puerperal infection, rupture of a pyosalpinx, etc. According to the death certificates on file at the Health Office in this city, for the twelve months ending March 1st, there were 9 deaths from peritonitis, and only 1 from typhlitis. One of these cases was caused by ectopic pregnancy. Of the remaining cases, 4 were males and 4 females. It is possible that *post-mortem* examination would have revealed appendicular disease in a portion of these cases, especially amongst the males.

Fitz makes the suggestion that some cases of peritonitis which recover, in typhoid fever, are due to perforation of the appendix, Osler also states that eleven instances have come under his observation of perforation in typhoid fever and phthisis.

The appendix may be found in various positions, even on the left side. In the *Medical News* of November 25, 1893, Dr. Fowler, of Brooklyn, reports 3 cases of left-sided appendicitis, which were not recognized on account of this abnormality. Osler states that, according to his *post-mortem* notes, it is stated that the appendix has been found in close contact with the bladder; adherent to the ovary and broad ligament; in the central portion of the abdomen, close to the navel; in contact with the gall bladder; passing out at right angles and adherent to the sigmoid flexure to the left of the middle line of the abdomen; and in one case it passed with the cecum into the inguinal canal, curved upon itself, reëntered the abdomen, and was adherent to the wall of an abscess cavity just to the right of the promontory of the sacrum.

Catarrhal inflammation may induce the most characteristic features of this disease; pains in the abdomen, localized in the right iliac fossa, perhaps at first not severe enough to confine the patient in bed. This attack may pass off, to recur again in a few weeks with more severity. Possibly no tumor can be felt externally, and on rectal examination a firm, round body may or may not be felt. Temperature, 101° to 103° F.; thighs flexed; severe pain on extending the limbs; vomiting, but no fecal odor; constipation.

In perforative appendicitis there may be initial symptoms, such as nausea, constipation, and sometimes diarrhea, uneasiness and distress in the right iliac fossa. These symptoms may possibly be associated with localized peritonitis. Sudden, violent pain in the abdomen, usually in the right iliac fossa, is the most decided symptom in perforation of the appendix, and was present in 84 per cent. of the cases analyzed by Fitz. Fever, furred tongue, and vomiting may precede or accompany this pain. An initial chill is rare. Tympanites may be early and interfere considerably with the examination, or the abdomen may be hard and flat, or one side may be more prominent than the other. Diarrhea is usually more frequent in children than in adults. The appendix may hang free in the peritoneal cavity, adhesions not having formed, when the perforation at once excites a diffuse and violent peritonitis. As a rule the ulcerated appendix becomes adherent before perforation, and a localized peritonitis only results.

In many cases, not operated upon, pus may be found in the feces, just after the attack has reached the highest point, showing that the abscess has ruptured into the cecum. These cases usually recover quite rapidly. Murphy, in his recent report of 117 cases, shows that pus was present in at least 95 per cent., and advocates operation in all cases. This is probably an unsafe rule to lay down, but of course when we are reasonably certain pus is present, without doubt the proper thing to do is to operate as soon as possible, for no one can tell at what moment rupture may take place, or gangrene supervene, or whether it may rupture intra or extra-peritoneally.

In regard to the *technique* of the operation, Dawbarn, of New York, makes the following suggestions to prevent the field of operation being obstructed by the small intestines: "Turn the patient over so that he rests with the left side against the table and the field of operation uppermost. Then seize the edge of the cut in the abdominal opening with a retractor and draw it forward away from the spine. This will made a cavity, into which the small intestines will fall out of the way, while the cecum, which has a very short mesentery, cannot follow, but remains uppermost.'' The appendix should be tied off as close as possible to the cecum, and after removing it, apply pure carbolic acid and invert the mucous membrane of the cecal opening with two or three Lembert sutures, to prevent any infection, thoroughly irrigating the cavity or wiping with gauze sponges, providing for drainage with iodoform gauze or tubular drains, and closing each layer separately with animal sutures, except the skin, where silk may be used. With a copious antiseptic dressing and a firm binder, the toilet is complete.

With these general remarks, I would like to present to you for discussion this evening, the following propositions:

1. So-called inflammation of the small intestines is a condition almost always associated with appendicitis.

2. Recurrent cases of appendicitis can be termed proper for operation, especially when severe, and should be operated upon between the attacks, when possible.

3. Cases of a tubercular type frequently recur, and should always be operated upon.

4. In every acute case, where the condition grows worse within 24 to 36 hours, surgical interference should be prompt.

5. Appendicitis is strictly a surgical disease and should always be treated as such.

6. Cases should be seen several times a day, as obstruction may take place, and important symptoms arise in one or two hours.

7. We should never mask the symptoms by giving too much opium, as it may lead us to think the inflammation is under control, when it is really progressing rapidly.

8. Probably 90 or 95 per cent. of the diseases about the cecal region originate in the appendix.

9. All cases of acute appendicular perforation should be operated on, as well as all cases where we are reasonably certain pus is present.

10. Nearly every case of perforation of the appendix, which is accompanied by diffuse peritonitis, is fatal.

11. Pain is felt in the right iliac fossa in about one-half of the cases, and the other half feel the pain in the abdominal cavity, not localized.

12. Appendicitis in children usually progresses very rapidly and is very fatal; therefore operative interference should be prompt, as soon as a positive diagnosis can be made.

13. Perforation of the appendix may take place intra-peritoneally or extra-peritoneally. Intra-peritoneal perforation may end in local or general peritonitis. Extra-peritoneal perforation may end in a local infection, with abscess.

14. Undoubtedly, microörganisms play a very important role in the etiology of appendicitis.

15. The cardinal principle in operating is to manipulate the viscera as little as possible.

16. The danger of ventral hernia may be obviated by carefully closing each layer separately.

17. Entire closure of the wound by first intention can be effected only in cases in which the operation has been undertaken in the early stages of the attack, before suppuration is present.

18. Aspiration is considered an unsafe procedure, as we may cause the abscess to rupture, or if there is only a small amount of pus present, it may not be reached at all. An exploratory incision is far safer, and at the same time the appendix may be removed.

19. Careful search should be made for multiple abscesses. When there is an abscess, no search should be made for the appendix, unless it can be done without disturbing the peritoneal adhesions. Simply wash out the abscess and drain.

20. McBurney's point is of very little diagnostic value, as the appendix is not uniformly found in what is called a normal position. If we depend on this point, we are liable to be misled in our diagnosis.

21. Fluctuation cannot always be detected, even when an abscess of large size is present.

22. We do not always find noticeable symptoms when rupture takes place, neither can we always locate a tumor, even when an abscess of large size is present.

628 Fifteenth street.

THREE CASES OF ACUTE INFECTIOUS OSTEOMYELITIS.

By JAMES J. MCKONE, M.D., Tacoma, Wash., Surgeon to St. Joseph's Hospital;
Assistant Surgeon U. S. Marine Hospital Service.

The manner in which this infection occurs is still an unsettled matter. It often follows colds or injuries. The first symptoms are severe, deep seated, gnawing pains, worse at night; these are followed by edema of the soft parts, with high fever, preceded by a severe chill. If relief is not obtained by natural or artificial means, the patient lapses into a typhoid condition; in fact, the disease is often diagnosed as typhoid fever at this time, as it is often mistaken for acute articular rheumatism in the earlier stages.

As the disease progresses, the intraosseous tension becomes so great that the vessels become occluded, and more or less extensive necrosis takes place.

Osteomyelitis, when it attacks the cortical portion, is not very severe. It produces a necrosed condition which, however, is quite amenable to treatment. If seen early, a free incision may avert the disease.

In central osteomyelitis when sinuses form, the acute symptoms subside; if the disease is extensive and no relief is afforded, the patient's health suffers greatly and the prognosis is almost hopeless. For this reason it is always best, in doubtful cases, to make one or several small openings with a gimlet, for diagnostic purposes. Even if pus is not found, the openings often give great relief. Through these holes a small probe can be introduced and a search made for necrosed bone. This cannot always be accomplished through the natural sinuses, on account of their tortuous condition.

The three following cases of the disease are the most marked that have occurred in my practice:

CASE I.—W. D. C——, aged 16; always had good health; no history of injury; family history good. His mother supposed he had "growing pains" when he first complained of pain in his right arm. When I saw patient he had a well marked swelling over the middle of the right humerus, with a temperature of 104° F. He had had a severe chill the day before; his face was anxious and he was flighty at times. The boy was placed under ether, an Esmarch bandage applied, and the thickened bone—which could be distinctly felt through the skin—cut down upon, the periosteum separated and the external surface of the bone, with the exception of two inches, was chiseled away. About two ounces of pus escaped and several large sequestra were removed. The cavity was thoroughly curetted and irrigated with a strong bichloride solution (1:500). This was then washed away with boiled water and the wound closed with sutures except at one end where a small opening was left for drainage. A dressing was then applied which consisted of a protective strip and gauze, with an abundant supply of cotton, and a bandage moderately tight to prevent secondary hemorrhage, the cotton preventing strangulation from undue pressure from the bandage. Esmarch's bandage was now removed and the limb held in a horizontal position for about one hour, to watch for secondary hemorrhage, but fortunately none appeared. This is the method commonly called Schedes'. There was no more pain and the temperature dropped to normal. The dressing was changed for the first time on the twelfth day, and the wound found united throughout. In eight days more the boy was up and has gradually obtained a useful arm. It is now nearly two years and there are no signs of recurrence.

CASE II.—T. J. M——, undertaker, 33 years of age. Family history good. Suffered from a compound comminuted fracture of the right tibia when 10 years of age. For 3 years previous to the present attack has had, at times, severe pains in the leg at night. While on a trip to Minnesota during the cold weather, he was suddenly attacked with severe pains in the affected limb, and consulted a physician, who advised an operation, to which patient would not submit. He then started for Tacoma, but the train was blockaded by snow for four days, during which time he suffered severely, being delirious at night. On arriving at Tacoma, he was taken to St. Joseph's Hospital, but for the first few days he positively refused to submit to surgical interference. He continued to suffer terribly and was finally persuaded to have an operation. With the aid of Dr. Cateman, I removed, by malet and chisel, nearly the whole of the anterior portion of the tibia, clearing out a large amount of pus and necrosed cancellous tissue. The wound was then packed with gauze. The patient did badly; he gradually lapsed into a typhoid condition, and went on from bad to worse until he was only semiconscious, remaining in that condition for nearly a week. The wound in the meantime had been treated according to strict antiseptic rules, and the patient well nourished and stimulated. After consultation with Drs. Armstrong, Beardsley, Wing and Cateman, it was decided to amputate at the knee joint. This was done, but patient never regained consciousness, and died 3 days later. During his illness he presented a well-marked septic intoxication, so common in these cases of acute infectious osteomyelitis, where there is no vent for the pent-up pus.

Case III.—Frank P——, aged 17 years, when first seen was found to be suffering from osteomyelitis of the right femur; there was no pain, which is accounted for by the existence of a tortuous sinus into the popliteal space. The bone was thickened throughout its whole extent, the knee was flexed and anchylosed. The operation was performed at St. Joseph's Hospital, Drs. Beardsley and Baldwin assisting. The bone was exposed from hip to knee on its outer surface, the whole external surface of the femur chiseled away, and a large sequestrum, about 7 inches long, and considerable debris removed. The wound was curetted, and several cloacæ which existed were treated with the actual cautery. The wound was irrigated with a strong solution of bichloride (1:500), which was afterward washed away by a milder solution to prevent systemic effects. As it was feared that the wound, on account of its large surface and numerous cloacæ, could not be made perfectly aseptic, we decided to pack with gauze for a few days. At the end of 3 days the gauze was removed and the wound mildly curetted to start a fresh oozing. This being obtained, the soft parts were drawn together and the wound dressed with gauze and cotton. At the end of ten days, with the exception of a small opening at the angle for drainage, the soft parts had completely healed. In 6 weeks from the time of the operation, the boy left the hospital, with the wound completely healed. The anchylosed condition of the limb still remained, as no attempt was made to overcome it.

In these cases of osteomyelitis of the femur, the ultimate results are not good, on account of the deep situation of the bone and the large blood vessels which are apt to be interfered with. The operation is difficult, and some small focus of infection often remains. Secondary operations are, as a rule, required.

1102 Pacific Avenue.

A SUCCESSFUL CESARIAN SECTION.

By W. S. THORNE, M.D., San Francisco, Cal., Physician to St. Mary's Hospital.

Read before the California Academy of Medicine.

Mrs. A——, aged 28, native of Italy, primipara, entered St. Mary's Hospital May 24, 1894, having been in labor since May 20th. An examination revealed a typical flat pelvis, the antero-posterior diameter of the superior strait about 1¾ inches. The sacrum was crowded down into the pelvis, the superior strait being filled by the right arm of the child. The bag of waters had ruptured two days before.

An operation was advised, and after the patient had been etherized an incision was made in the median line, extending from a point two inches above the symphysis pubis to within an inch of the ensiform cartilage. The uterus was drawn out, a rubber band placed around the cervix, and before the uterus was opened it was allowed to fall back upon a hot antiseptic towel.

The uterus was opened, the child and placenta delivered, and both the uterus and abdominal wall closed, the former with sterilized silk, the latter with a continuous catgut suture for the peritoneum and silk for the muscle and skin.

The position of the child was as follows: Occiput anterior in the right iliac fossa, the right arm filling up the superior strait. The placenta was at the normal site.

The patient was freely stimulated and hypodermics of ergotin administered. Recovery was uneventful, the temperature never having risen higher than 100° F. The child, a ten-pound boy, is alive and well.

533 Sutter street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and

HENRY GIBBONS, JR., M.D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Nature and Treatment of Hemorrhage in Uterine Fibroids.—Uterine fibroids may be subperitoneal, in the broad ligaments, intraparietal or submucous. Fibroids of the broad ligaments and subperitoneal fibroids seldom cause menorrhagia. The flow is generally scanty. Intraparietal fibroids without anatomical changes of the mucosa produce sanguineous stasis of the periuterine vessels by preventing irrigation of a more or less extended part of the uterine muscular parenchyma, so that the blood flows back through the tubes in the form of menorrhagia. It is only necessary in these cases to relieve the circulatory stasis. Rest in bed, warm vaginal injections, internal and subcutaneous administration of ergot, hydrastis hamamelis are always beneficial. Electro-dynamic treatment arrests menorrhagia, and the constant current with rhythmic intervals employed by M. CHERON, the reversals without shock by DAMON, and alternating currents with 3,000 or 5,000 interruptions per second give good results. The constant current with the positive pole applied within the uterus is efficacious, even when its intensity does not exceed 50 milliamperes. APOSTOLI'S method, however, seems preferable in these cases, because it acts upon the nutrition of the tumor, as well as on the periuterine vascular system, often lessening the size of the fibroid sufficiently to prevent a recurrence of menorrhagia. When the tumor has produced anatomical changes in the uterine mucosa, more radical treatment becomes necessary. These intraparenchymatous fibroids sometimes involve the whole body of the uterus, and can hardly be distinguished from it by the microscope. The mucosa becomes degenerated, traversed by dilated indurated vessels, with friable walls opening on the surface of the uterine cavity. Metrorrhagia is almost constant, and conservative measures afford only temporary relief. In these cases the operator must choose between hysterectomy and ligature of the uterine arteries. Submucous fibroids not only cause sanguineous stasis, but they are generally accompanied by a fungous endometritis, which occasions profuse hemorrhage. Neither curettage, medical treatment, nor cauterization prove permanently beneficial, and electro-dynamic treatment is of little efficacy. Apostoli's treatment is here preferable to other methods, on account of its double action on the fibroid and the endometritis.—*Progrès Médical*, June 9, 1894.

Gynecological Gymnastics.—This treatment, invented by a Swede, TH. BRANDT, properly consists of two equally important parts—gymnastics and massage. Unfortunately, massage has hitherto usurped the most important role, and the system has thus lost a great part of its value. The best results are only obtainable by a combination of both methods, but gymnastics alone may be of great service. Practised regularly and intelligently, they often cure functional troubles, which, neglected, cause serious diseases. These movements are better seen than described, and their execution requires the greatest care and attention on the part of physician and patient. Nevertheless, this system of gymnastics can be learned by any physician who will take the trouble, while massage requires special aptitude. The patient may be allowed to practice some of the movements at home, but others require a certain degree of knowledge and experience. This method has nothing in common with ordinary exercises of skill and strength. Its aim is not to tone up the muscular system, but to produce remarkable local effects. By its different sets of movements blood may be drawn to or from the pelvic organs at will. What may be called the decongestive movements are indicated in all forms of pelvic disease, while those of opposite character are only beneficial to young girls at the formative period; to women whose reproductive organs have remained undeveloped, or to very stout women whose menses have almost disappeared. In the last class of patients, they should be combined with a severe diet. The aim of the decongestive movements is relaxation of the abdominal wall, and, there fore, the sternal extremity and the symphysis pubis should be brought near together, while the dorsal muscles, the posterior muscles of the thighs, and the femoral abductors are exercised. When the congestive movements are indicated the object is, on the contrary, great tension of the abdominal wall, and the symphysis and the xiphoid cartilage must be separated as far as possible, while every exercise tends to increase this tension. The exact physiology of this system of gynecological gymnastics is still to be determined, but it has already yielded excellent clinical results.—*Union Médicale*, May 24, 1894.

A New Treatment of Diphtheria.—DR. PIEDALUS recommends the following new method of treating diphtheria, which he has used for the last three years with the best possible results. During that time he has not lost a single case, nor once been compelled to resort to tracheotomy. The following is his formula:

Simple Syrup	gm. 1000.
Iodide of Potash	gm. 50.
Biniodide of Mercury	gm. .50.

Dose: A coffeespoonful or a dessertspoonful every two hours, according to the age of the patient.

As much as 300 grammes may be given in six or eight days to children of from four to six years. After a few hours the well known signs of iodism, coryza, salivation, etc., appear, and the dose may then be diminished, though not below the quantity which will maintain a saturated condition of the system. Two or three times a day the false membrane should be gently removed with a rounded spoon-handle, and the throat touched with a cotton tampon dipped in Van Swieten's liquid.—*Journal de Médecine de Paris*, May 27, 1894.

SURGERY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal., and

G. F. SHIELS, M.D., C.M., L.R.C.S.E., Surgeon Post-Graduate Department University of California, San Francisco.

The Pathological History of Synovial Tuberculosis.—Recent examinations of about 300 specimens of diseased knee have led KÖNIG to certain conclusions which he holds to be of great importance in their bearing on the pathological history of articular tuberculosis. Pending the publication of a large work on disease of the knee, he has thought it well to make these conclusions known in a contribution to the *Centralblatt f. Chirurgie*, and also in a paper read at the International Congress at Rome. Synovial tuberculosis, he holds, whether occurring primarily in the membrane, or caused through infection from a deposit in bone, always begins with a sero-fibrinous exudation. This exudation is not to be regarded as a definite form of tuberculosis, as it may disappear without leaving any important changes in the affected joint. In most instances, however, the fibrin is deposited in successive layers on the articular cartilages and on the inner surface of the synovial membrane. The layers are thickest in those parts of the joint which are most capacious and most favorable to the deposit of fibrin. The deposited layers after a time become organized, the vessels in deposits on the synovial membrane passing directly into the fibrin, whilst those supplying the deposits on articular cartilage pass from the margin of the synovial insertion. This organization is speedily associated with the deposit in the fibrin of heaps of round and giant cells. The character of this organized deposit—whether fungoid, caseous, purulent, or fibroid—depends on the activity of the morbid process, whilst the forms it takes in different cases and in different joints are influenced by such conditions as movement of the affected joint and intra-articular pressure. So long as the disease is progressive, every organized deposit presents on its free surface a layer of unorganized fibrinous material. The new-formed tissue, and not degenerated synovial tissue, forms at first the fungoid or granulating masses of articular tuberculosis. Tubercle is primarily deposited in this new-formed tissue, and passes from this to form secondary growths of a like character in synovial membrane, cartilage, and bone. The so-called tuberculous ulceration of articular cartilage is regarded as being at first a passive process. Erosion of cartilage may be caused by a simple organized clot of blood just as readily as by tuberculous granulations. The bone is then attacked in like manner, and defects are formed, which in size and shape resemble primary osteal deposits. The present teaching with regard to the occurrence and the frequency of primary deposits in bone must, König holds, be completely revised. Primary osteal deposits occur, he states, much less frequently than is generally supposed. In a number of specimens of diseased knee, shoulder, and hip, which have been recently examined, cavities which would hitherto have been regarded as due to primary tuberculosis of bone have really, in König's opinion, been formed by the erosive action of fibrino-tuberculous and other organized new growths. In conclusion, König points out that articular cartilage and the articular extremity of a bone may also be destroyed by a granulating ostitis originating in the subcondial osseous structure. This ostitis, the results of which may be confounded with those of tuberculous disease, is not, as a rule, of tuberculous nature.—*British Medical Journal*, June 30, 1894.

An Ovarian Cyst Simulating a Strangulated Umbilical Hernia.—DR. GEORGE G. HOPKINS reports (*Boston Medical and Surgical Journal*) the following case: Flora Fader, aged 57 years, married, Scotch, was admitted to St. John's Hospital, November 27, 1893, for a strangulated umbilical hernia. I was sent for immediately, supposing it to be an intestinal hernia. I found a tumor protruding just below the umbilical opening. It was about the size of a walnut and very dark—almost black. All aseptic precautions having been taken, ether was administered. Assisted by the house staff, I proceeded to nick the strangulating band, guarding the tumor with a broad, flat director. The constriction being relieved, the tumor at once disappeared; but, to my surprise, fluid began to discharge by the opening, but there being no odor, I felt sure that my first thought was *wrong*, that is, rupture of the intestine. I enlarged the opening to 2 inches, and serous and gelatinous matter began to discharge. Exploration with the fingers discovered that a tumor occupied a large portion of the abdominal space. This tumor proved to be a multilocular gelatinous cyst of the right ovary, of an estimated weight of 25 pounds. It was entirely free from adhesions. It was necessary to extend the incision 7 inches in order to remove the tumor. The pedicle was secured with sterilized braided silk, cut short and dropped in the abdomen. The pedicle was treated with crystallized carbolic acid, after division. The toilet of the abdomen was made with great care. It was twice irrigated with Tiersch's solution. The wound was closed with deep sutures, including all the tissues. No drainage tube was used. This unpromising patient—an ambulance case—never had an unfavorable symptom. The temperature never reached 100° F. She was discharged from the hospital December 28, 1893, cured.

Harpoon Wound of the Liver.—Recovery.—DR. T. GANN, of British Honduras, reports the following case: On February 21, 1894, a strongly built man, about 28 years of age, was admitted into the Corazal District Hospital, with the following history. On the previous day he was out in his dorey spearing fish on the Rio Nuevo. The harpoon was fastened to its shaft and pointing upward. He was standing up in the boat when she gave a sudden lurch, throwing him forward on the point of the harpoon, which penetrated his abdomen. On admission, about 28 hours after the accident, he was much collapsed and complained of great pain all round the wound; about one inch of the harpoon (which afterward proved to be 7 inches in length) was seen protruding from a jagged wound immediately below the tip of the ensiform cartilage. Chloroform was administered and an incision 6 inches in length was made from the harpoon shaft through the abdominal parietes; the peritoneum was opened, and it was then found that the harpoon penetrated the right lobe of the liver, and on passing the hand backward along the under surface of the liver the point of the harpoon could be felt projecting through its posterior border. The difficulty of removing the harpoon now presented itself, as it was armed with two sharp, flattened barbs, about three-quarters of an inch long and 2 inches apart. With considerable difficulty a grooved director was passed down along the shaft of the harpoon, and upon this an incision was made forward through the liver substance with a bistoury; the harpoon was now pushed backward in order to disengage its barbs from the liver substance in which they were embedded, and was then easily removed. The peritoneum was washed out with a 1:4,000 warm perchloride of mercury solution, and nearly half a pint of dark blood-clot removed. The hemorrhage from the wound in the liver proved troublesome and was not checked for nearly half an hour. The abdominal wound was closed with five deep sutures, and a large india-rubber drainage tube was inserted along the track of the harpoon. The wound was dressed with iodoform and carbolic gauze. The drainage tube was removed on the fifth day, and, with the exception of a rise of temperature to 104° F. on the evening of the third day, the patient had no bad symptom and was discharged with the wound firmly healed on the twenty-first day after admission.—*Lancet*, June 2, 1894.

Intestinal Surgery.—BARACZ (*Centralbl. f. Chir.*) advocates the practice, under certain conditions of intestinal obstruction, of complete diversion of a portion or portions of intestine from the general tract, the ends of the diverted parts being closed by sutures. For instance, in a recorded case of successful resection of the cecum and ascending colon, the ilium was united to the transverse colon by entero-anastomosis, the terminal portion of each of the united pieces of gut being converted after the free and open end had been closed by sutures into a *cul-de-sac*. The author concludes his paper with the following statements: (1) The cecum, when diverted from the rest of the intestinal tract, produces very little, if any, fecal matter. (2) Complete diversion of a portion of intestine is not attended with extra risk, as there is no fear, as has hitherto been supposed, of rupture from stagnation of feces. (3) Total diversion of a portion of intestine is a justifiable procedure in cases of intestinal obstruction due to chronic invagination and inflammation of the walls of the intestine, or to malignant growth, when resection is contraindicated by extensive adhesions or the size of the tumor. It would be preferable to simple entero-anastomosis, as it would prevent the diseased portion of intestine being irritated by fecal matter; partial diversion, by which the author means the formation of an artificial anus, would necessitate a second operation for the removal of a distressing condition. (4) Senn's method of establishing intestinal anastomosis is the

best, and is attended with the least risk of perforation. As material for the discs or plates, sliced turnip is to be preferred to decalcified bone; the vegetable disc can be more readily made and applied, and is less likely to cause profuse sloughing and perforation of the intestine.—*British Medical Journal*, July 28, 1894.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Surgical Treatment of Egyptian Ophthalmia.—Dr. Abadie has tried the surgical treatment of granular conjunctivitis, which is so prevalent in the Orient, by the modern methods that have yielded such favorable results in the Occident. He made a trip to experiment on the disease in its native country. In regard to various methods of removing the diseased tissue he says many accomplish the desired result. One should always avoid destroying more healthy tissue than is necessary. The conjunctiva should be undermined, not destroyed. The operation should be followed by antiseptic irrigation with a 1:500 bichloride solution. In the discussion following the reading of the paper, Dr. Trousseau said he had not had such favorable results as Dr. Abadie, especially in children. Recurrences were frequent, and the conjunctiva was often not left smooth. He had noticed that of late the enthusiasts for surgical treatment were becoming less ardent in their advocacy. To make the treatment effective the surgical method must be followed by the older treatments. Dr. Galezowski said that the conjunctival fornix was the location for which granulations had a predilection, and that he had recommended for their treatment excisions of this part of the conjunctiva. Complete cure will be secured by subsequent treatment by cauterization. In replying, Dr. Abadie said that he had previously advised that surgical treatment was not suitable for children. It is true that surgical treatment is not proper in the suppurative form. He never uses jequirity, as he considers it dangerous. One cannot regulate the severity of the artificial inflammation.—*Centralblatt f. pract. Augenheikunde.*

A Case of Quinine Amaurosis.—Dr. J. H. Claiborne reports a case of total blindness from an excessive dose of quinine. The patient poured the palm of his hand nearly full of 2-grain quinine pills, which he took a short time before going to bed. He remembered nothing after going to sleep until he awoke a few days later, perfectly blind. The optic discs were pearl-white and the vessels much smaller than in health, but not so small as they subsequently became. He complained of seeing many-colored figures, that changed their hues. The sensation of red predominated. The pupils were fixed and moderately dilated. Eight days after taking the quinine he had absolutely no light perception. About 2 years later the patient, with the right eye, could see the hand 6 feet distant, while the left could only perceive light. The author draws the following conclusions: (1) Quinine in toxic doses may produce blindness. (2) The toxic dose is distinctly indeterminate. (3) The duration of the amaurosis varies largely. (4) The field of vision remains contracted. (5) Central vision usually returns to the normal. (6) There is color-blindness at first; the color percep-picture is that of restored within the central field. (7) The ophthalmoscopic tion is ultimately white atrophy. (8) Experiments on dogs show that there is atrophy of the entire optic tract. (9) The same experiments show that the cells of the cuneu are probably not affected. (10) Treatment is of no avail.—*New York Medical Journal*, June 30, 1894.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M.D., Sacramento, Cal.

The Cutaneous Absorption of Guaiacol.—Recent investigations go to show that guaiacol is readily absorbed by the skin. MM. LINOSSIER and LAMROIS have found that the process is very rapid; a quarter of an hour after the drug had been applied to the skin it was detected in the urine, and the elimination was not complete at the end of 24 hours. Analysis showed that in the urine passed during the whole of one day no less than 55 per cent. of the guaiacol applied was present. Investigation showed, moreover, that in order to obtain the maximum degree of absorption it was necessary to cover the part of the skin, over which the drug had been spread, with an impermeable dressing and some layers of cotton wool, in order to raise the temperature of the part. This method of administration seems to possess some advantages and is especially indicated as far as guaiacol and creasote are concerned, the use of which, beyond a certain extent, is limited, owing to the gastric disturbance excited when the drugs are given by the mouth.—*Medical Press and Circular.*

New Dilator for Chronic Gonorrhea.—The instrument has the shape of the usual catheter, and consists of two parallel arms which are separated by an intermediate screw. A third arm may also be added if required. A rubber cover is drawn over the instrument in use, to prevent the mucous membrane being caught between the arms. The good points of the invention are, that, entering a very small stricture, dilatation up to No. 30 Charrière is possible; it allows the application of medicines to the dilated membrane, lessens the usual irritation from the use of bougies, can be easily disinfected, is of use in gonorrheal epididymitis, and is especially of use in preparing the urethra for endoscopy.—*Therap. Monatsheft—Centralblatt f. Chirugie.*

Antipyrin as a Vesical Analgesic.—It fortunately rarely happens that irrigation of the bladder produces cramps or severe pain. M. E. VIGNERON, in three cases of this kind, (*Annal des Mal. des Organ. Genito-Urin.*), has had most favorable results from injecting a solution of antipyrin. In contrast to the use of cocaine, it can be employed for months at a time, without harm. In bladders not dilated, 10 to 20 grammes of a 4 per cent. solution of antipyrin are injected and allowed to remain ten minutes in the bladder. In dilated bladders, after irrigation, 60 to 120 grammes of a .5 to 1 per cent. solution are injected and allowed to remain.—*Centralblatt f. Chirurgie*, July 14, 1894.

Treatment of Erysipelas in Infants.—In the service of M TORDEUS, of Brussels, the treatment consists in local applications and general medication. *Local medication:* Compresses soaked in spirit of camphor with sublimate, in the following proportion: Alcohol-camphor, 1000 g.; corros. sublim. .50 g. These compresses to be kept applied to the eruption. *General medication:* Lowering the temperature by antipyretics and modifying the inflammation by antiseptics. Antifebrin and resorcin combined are given internally, the dose of antifebrin being as many centigrammes as the child is years old, and the dose of resorcin twice as much. This is repeated twice or three times daily.—*Bulletin Général de Therapeutique*, June 15, 1894.

Gonorrhea in the Female.—E. LUTHER recommends as treatment, the use of sitz baths two or three times daily; vaginal douches of weak sublimate solution, 1:5000; or a 1 per cent. sulphate of copper solution; iodine and glycerine tampons; rest; fluid diet and regulation of bowels.—*St. Petersburger med. Wochenschrift.*

Total Gangrene of the Glans-Penis—Autoplastic Operation.—QUATTRO CIOCCHI reports (*Riforma Medica*) the following case: Through a soft chancre the patient had lost nearly the whole of the skin of the penis. Ciocchi secured a lap from the front of the scrotum, sewed it in place on the penis, and after 25 days separated it from its original attachment. Perfect union took place, the wound on the scrotum healed, and the patient has a healthy penis.—*Centralblatt f. Chirurgie.*

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Pepsin Lavements in Dysentery.—Pepsin has been applied to very many of the diseases of the nosology, yet it remained for DR. SUMMERS, of Waukesha, Wis., to discover that it possesses a most satisfactory therapeutic action in dysentery. He washes out the bowel with a strong solution of pepsin (½ ounce to 6 ounces of warm water) every three hours, which act, he declares, "clears off the mucous surface effectually." He next employs a soothing injection, such as laudanum and starch, as hot as can be borne. He declares that after two or three washings and injections the patient experiences great relief, and healthy action is at once set up, when, if constitutional conditions receive due consideration, rapid healing follows.—*Therapeutic Gazette.*

Ragwort in the Treatment of Menstrual Disorders.—During a residence in the country, DR. WM. MORRELL noticed that the common ragwort was extensively gathered by the old women of the place, and on inquiry learned that there was an extensive sale for it in many parts of England. It would appear that *Senecio Jacobœa* and also *Senecio Aureus* have long been popular emmenagogues used in the treatment of dysmenorrhea. Dr. Morrell prepared a tincture, a fluid extract, and also an active principle (senecin), with which he made observations. His conclusions are that the drug succeeds admirably in those cases in which the menstrual function, having been established and performed regularly for some months or even years, is delayed or suspended as a result of cold or some similar cause. It is also of service in the amenorrhea following parturition and suckling, provided that the patient is not anemic, and nothing could be more efficacious in controlling vicarious menstruation. In general action it seems to be allied to pulsatilla.—*Medical Press and Circular*, April 25, 1894.

The Action of Extracts of Muscles, Arterial Blood and of Urine upon the Temperature.—M. H. ROGER has carried out a carefully-conducted series of experiments, rabbits and dogs being used, from which he derives the following conclusions: (1) The extracts of the muscles contain thermogenic substances, while it is impossible to say whether these substances preëxist in the tissues or originate during the manipulations which they undergo. (2) The entire arterial blood possesses a slight temperature-reducing property. (3) The entire arterial blood is sometimes thermogenic; this effect is noted when one takes it from a sick animal or exposes it to cold; in the latter case the thermogenic effect disappears when the animal is placed for 24 hours in a warm place, or when one has made a preliminary venesection. (4) Defibrinated blood, serum, and the exudates of pleurisy and of hydrocele produce elevations of temperature, sometimes preceded by a slight lowering. (5) Urine causes a lowering of temperature, secondarily an elevation; this latter effect appears to be more marked when the subject which has furnished the urine has performed muscular exercise than when he has remained in repose.—*Archives de Physiologie*.—*American Journal of Medical Sciences*, August, 1894.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

The Etiology and Treatment of Multiple Sclerosis.—M. MONCORVO emphasizes the relationship existing between this disease and syphilis, an observation which he has championed for many years. He contends that lues, as an etiological factor, does not usually receive the importance that it merits. He recommends the use of iodides and mercury, which yield the best results in the treatment of this affection.—*Journal de Médecine de Paris*.

The Influence of Tobacco on the Tubercle Bacillus.—There is relatively little literature showing how microörganisms react to the action of tobacco. DR. KEREZ refers to the observations of WERNICKE during the late cholera epidemic in Hamburg. The latter showed that the exportation of cigars, and, in fact, tobacco, was unattended by any danger, as the organisms of cholera rapidly succumb when brought in direct contact with tobacco. Dr. Kerez devotes the present article to certain investigations relating to the influence of tobacco on the tubercle bacilli. He directs attention to the deplorable sanitary condition of tobacco factories, and observes incidentally that the average duration of life of the laborer in tobacco factories is but 38 years. Contamination of the tobacco employed in the manufacture of cigars may be direct from the laborer, who may be a victim of tuberculosis, or through the atmosphere. The manufacture of cigars is then described in detail, through the successive stages of wetting the tobacco leaves, preparation of the filler and wrapper, moulding the cigars, and finally their preservation in forms at a temperature of 30° C. until they are sold. The writer, in describing the details of cigar-making, calls attention to the fact that, although paste is placed at the disposal of the workers, the latter, for convenience, often use their saliva for purposes of agglutination. The experimental researches of Kerez, which have been executed with every regard to detail, show practically that the microbicidal action of tobacco on the tubercle bacilli is very great and that the fresher a cigar the greater the danger of transmitting tuberculosis; and, conversely, the older a cigar the longer the action of the tobacco on tuberculous contamination, and consequently the diminished danger of inoculation.—*Centralblatt f. Bakteriologie*.

Essential Asthma.—In a clinical lecture on this subject, at the Hospital de la Charité, POTAIN defines essential asthma as a malady characterized by the occurrence of irregular or generally periodic attacks of dyspnea. He then proceeds to picture the conventional physiognomy of the disease. Death during a paroxysm is rare. Leyden made an autopsy on an individual who had died during a paroxysm, and found emphysema with bronchial dilatation; the bronchioles were congested. A number of authors attribute the pathology of asthma to a spasm of the bronchial muscles. F. Frank has provoked contraction of the bronchial muscles by irritation of the nasal fossæ of the dog. It is certain that defective oxygenation of the blood plays an important role, coupled with an abnormal excitability of the respiratory center. The diverse theories relative to the pathology of the affection have each an element of truth. The condition which always exists is an excitability of the nervous system. He believes that the nasal origin of asthma has been exaggerated. Intoxications from lead and arsenic are often concerned in the etiology. Uremia and malaria are also causes. Asthma of periodic occurrence has been controlled by quinine. Diatheses are of importance in etiology. Heredity is an unquestioned factor. The asthmatic attack can be controlled in various ways. The inhalation of fumes produced by the combustion of paper impregnated with niter, and the inhalation of ether or iodide of ethyl, will often check a paroxysm. The use of a cocaine spray to the nasal mucous membrane often has the desired effect. Narcotics and bromides are also of value. To check the bronchial congestion, cupping and faradization of the skin are recommended. The only absolutely certain treatment for inhibiting a paroxysm is the use of morphine hypodermically. The danger of inducing the morphine habit must always be considered, and morphine is only indicated as an extreme remedy, and when everything else has been given a trial. The treatment of diatheses in the interparoxysmal periods is of the utmost importance.—*Union Médicale.*

Tuberculous Infection from Scrofulous Lymph Glands.—According to VALLAND, man is rarely infected by inhalation of tuberculosis, whereas animals are usually infected through the respiratory tract. This is ascribed to the fact that the tubercle bacilli do not float in the air, as is currently supposed, but are fixed on the floor and can only be removed mechanically. Therefore infection must take place from the floor. In consequence, animals are always liable to infection by this means and human beings only when they come in direct contact with the floor, as in childhood. He then proceeds to show that tuberculous infection of the lungs in later life is secondary to tuberculosis of the lymph glands in childhood, the infectious matter being conveyed from the glands to the lungs. In corroboration of this theory, he adduced the following interesting figures: In 101 of 108 tuberculous individuals he found enlarged cervical lymph glands; in the gland, the tubercle bacilli remained quiescent for a time, and under favorable conditions they were transplanted to the lungs. He examined 2506 persons and found enlarged cervical glands in the following percentages according to age: 96 per cent. between the ages of 7 and 9, 91.6 per cent. from 10 to 12, 84 per cent. from 13 to 15, 69.7 per cent. from 16 to 18, and 68.3 per cent. from 19 to 24 years of age. According to the progressive reduction with the increase of years, infection from scrofula antedates the school period. He says further, that enlargement of the lymph glands is not an evidence of tuberculosis, as the lymph glands enlarge from other infections, to disappear in a short time. If, however, the enlargement persists, it is very suspicious, for they are found enlarged in 93 per cent. of all persons suffering from pulmonary tuberculosis. In about 68 per cent. of adults, the cervical glands contain tubercle bacilli. Aside from the usual hygienic rules, nutrition, clothing, etc., to further prevent infection, the author directs attention to the necessity of treating promptly all wounds of the face sustained in childhood. Any excoriation should be protected at once. The child should be prevented from coming in contact with the floor, and any article removed from the floor should be thoroughly cleaned before it is given to the child. He further directs attention to other precautions based on the theory of infection from the floor.—*Münchener med. Wochenschrift.*

A Review of Ninety-two Cases of Cardiac Disease.—In a review of cardiac cases treated in the out-patient clinic of the Boston City Hospital, DR. HENRY JACKSON refers to the number of patients showing symptoms suggestive of circulatory disturbances, such as dyspnea, cough, edema, or inability to work, in whom diagnosis is more or less difficult. The necessity in such cases of a careful examination of the heart, as to its size, regularity of action and force, rather than of its valvular murmurs, is emphasized. Many cases of cardiac weakness exist in which no valvular lesions are found, and no etiology can be discovered during life. The substance becomes weakened and dilatation follows. Fatty degeneration, fatty overgrowth with infiltration, degeneration of the heart muscles from coronary disease or weakness from prolonged overwork, alcoholic abuse, arterio-sclerosis or renal disease, are frequent causes of cardiac weakness, as seen in out-door clinics in general. The term "Parietal Disease" of the heart, is suggested as a convenient one for such cases. Of 92 heart cases treated, 48 were without discoverable valvular trouble. Functional disturbances were found in 5. These showed palpitation and pain in the cardiac region, and were due to excesses in tobacco or tea. Rapidity of action, without changed size or strength of the heart, was present in them. In none of the 48 cases of organic trouble, was edema marked, and in but few was albumin in the urine. In 23 cases no definite cause was assignable, but most of them were addicted to alcohol. Seven had had rheumatism. Heart enlarged in every case, with the apex outside the nipple. Irregularity of action in 13 cases. Rapidity alone in 7 cases. Feebleness of pulsation with valvular quality of first sound at the apex were the only abnormal auscultory sounds in 14 cases. Of the 39 cases of valvular trouble, 7 came for other troubles and made no complaint about the heart. Seven complained of pain and distress in the cardiac region, 15 complained of dyspnea, 7 of cough, 4 of dizziness, and 2 of edema. Only 7 had given up work on account of dyspnea. All but two were engaged in heavy work. Several, with marked valvular defects and great increase in cardiac size, were engaged in hard labor. One of them with pallor and cyanosis; heart enlarged to two inches to the left of the nipple, with loud double murmur at the base, systolic at the apex, and over tricuspid area, continued to support his family as a blacksmith. Such statistics show the ability to carry on even hard work, and for a considerable time, which a patient with marked valvular cardiac trouble may demonstrate. In 22 cases rheumatism had existed.—*Boston Medical and Surgical Journal.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

A Case of Post-epileptic Aphasia.—DR. MÉLON has reported a case which is interesting, not only as regards the etiology, but also as to the course of the disease. The patient, a soldier, gives no family history of neuropathy, but he himself presents various stigmata; he is an epileptic; unilateral facial atrophy and chromoheteropia of the iris (right blue, left gray) are present, and the pupils are very large, the right one being larger than the left. The patient has always enjoyed good health, is not syphilitic, and has lived a fairly temperate life. One day, after he had indulged freely in bad beer, he ran a distance of about a kilometer [3,280 feet], fearing that he would be late at the garrison. Immediately afterward he had an epileptic attack, followed by loss of consciousness, lasting several hours. In the course of the day he improved slowly, so that consciousness returned and he was able to walk, but a complete aphasia was found present. After several hours the patient was able to write, and the motor disturbances of speech gradually disappeared. Dr. Mélon considers the apprehension, over-exertion and intoxication as the causes of the attack, which is rather uncommon as a sequela to epileptic insults.—*Arch. méd. Belges—Centralblatt f. Innere Medicin.*

Idiocy and Symptomatic Epilepsy.—DRS. BOURNEVILLE and SOLLIER report the case of a boy, 6 years old, in whose family there was no history of neuropathy. The pregnancy and labor of the mother were normal. Eight hours after birth the child had the first epileptic attack, which was mild. The attacks increased gradually in frequency and intensity and were not controlled by large doses of chloral hydrate. The boy gradually failed and died 10 hours after an attack. The temperature, which during the last attack was 38.5° C., had increased to 42° immediately after death, and was 3 hours afterward still as high as 36° C. The *post-mortem* examination showed a non-atrophy of the thymus, an adhesion of the dura-mater to the skull-cap and a partial adhesion of the pia mater to the brain; also, a tumor in the region of the hypophysis. The tumor was 25 mm. broad, 30 mm. long, and 20 mm. thick. It closed the sella tursica and reached as far forward as the chiasm; posteriorly it extended to the pedunculi cerebri. The tuber cinereum and corpora mammillaria were absorbed by the tumor. The pia mater terminated at the base of the tumor, the inferior surface being uncovered by pia. The microscopical examination showed that the tumor consisted entirely of nerve tissue. A premature synostosis could not be demonstrated.—*Progrès Medical—Centralblatt f. Innere Medicin.*

A Case of Rupture of the Heart in a Melancholiac.—This case, reported by DR. VINCENT NASH, was that of a lady, 64 years of age, who had recovered from several attacks of melancholia. In a further relapse of recurrent melancholia, during which she became much depressed and made several suicidal attempts, she had an attack of pneumonia of the lower lobe of the left lung. On the seventh day of the disease she was taken with a sudden collapse; cyanosis set in with a feeble, thread-like pulse, cold perspiration, severe dyspnea, and pain in the region of the heart. The physical signs of an affection of the mitral valve of the heart had already been discovered shortly after her admission to the asylum, prior to the beginning of the attack of pneumonia. The dyspnea became so severe that the patient could not lie down in bed; 48 hours after the beginning of the collapse death took place suddenly as the patient attempted to turn over in bed. The *post-mortem* examination revealed, besides red hepatization of the lower part of the left lung, and an affection of the mitral valve, a fatty degeneration of the heart and a rupture of the left ventricle a short distance above the apex. The pericardial sac was filled with blood-coagula. What is remarkable about the case was that she should live so long after rupture of the heart had apparently taken place.—*Journal of Mental Science—Allg. Zeitschr. der Psychiatrie.*

The Treatment of Idiots.—In a recent paper read before the Académie de Médicine, of Paris, DR. BOURNEVILLE gave the results of his researches on this subject, and his conclusions are quite unfavorable to the modern craniectomy as it has been practised during the last few years. He examined the crania of 350 idiotic or mentally deficient children who died at Bicêtre, and found that the union of the sutures of the skull does not, as a rule, take place too soon. As it is impossible during life to get an accurate idea of the condition of the sutures and the thickness of the skull, the indications for the performance of craniectomy can not be accurately formulated, and the operation will therefore sometimes be performed on skulls in which there is ample room for the brain. His examination of skulls which had been operated upon, also showed that the fenestra made can not to any great extent give more room for the brain to develop itself. The anthropologists are therefore right when they assert that the development and conformation of the cranium is secondary to that of the brain. Bourneville further states that the lesions of the brain, which are the causes of most of the forms of idiocy, are so diffuse and of such a nature as to make it hardly possible for them to be influenced by the operation spoken of. Most of the surgeons who have performed these operations agree that the improvement has, in a majority of the cases, been insignificant, doubtful, or altogether wanting, that the operation sometimes has dangerous sequelæ (paralysis, convulsions, etc.), and that it is in itself dangerous (14 deaths in 85 cases). He thinks the medico-pedagogic method, as recommended by Ed. Seguin and improved upon by himself, is the proper treatment to pursue.—*Hospitalstidende.*

FORMULÆ.

By GEO. B. SOMERS, M. D., San Francisco, Cal.

Hemorrhoids.—TUTTLE uses the following solution as an injection fluid. He never injects more than four minims at a time, even in the largest hemorrhoid.

Ac. carbolici	ʒ iss
Ac. salicylici	ʒ ss
Sod. bibor	ʒ i
Glycerin.	*ad* ℥ i

Hemoptysis.—EKLUND orders:

Sulphate of quinine	ʒ i
Ergotine	℥ ss

For 40 pills.

S.—Three or four pills a day.

Tonsilitis.

Ol. eucalypti glob.	m xv
Spt. camphor	℥ iss
Tr. guiac.	℥ iii ss
Glycerin.	*ad.* ℥ i

S.—Ten drops on sugar, to dissolve in the mouth every hour or two.—*Bulletin of Pharmacy.*

Follicular Tonsilitis.—LEVY gives:

Olei creasoti	gtt. viii
Tinct. myrrhæ.	
Glycerini	āā ℥ ii
Aquam	*ad.* ℥ viii

S.—Use as a gargle every 2 hours.—*Medical and Surgical Reporter.*

Erysipelas.—In the local treatment of this disease, GUNTERMANN uses

Fuller's earth	℥ ii
Talcum.	
Boric acid	āā ℥ i

S.—Local use.—*Universal Medical Journal.*

Fissure of Anus.—CRIPPS uses:

Ext. conii	ʒ ii
Ol. ricini	ʒ iii
Ung. lanolin	*ad.* ℥ ii

S.—Smear a small quantity over the parts 5 minutes before a motion is expected, and again after it has taken place. By this means spasm of the sphincter is relieved.—*Medical Press.*

Tonic Pills.

Ext. cinchonæ.	
Ext. kolæ	āā gm. 75
Ext. rhei.	gm. 40
Ext. nucis vom.	gm. 8
Ferri arsen.	gm. 3
Pulv. kolæ	q.s.

Make 100 pills.

S.—Two pills at each meal.—*Bulletin de Therapeutique.*

Diphtheria—Solvent Spray.

Olei eucalypti	ʒ ii
Sodii bicarbonatis	ʒ i
Sodii bicarbonatis	ʒ ii
Glycerini	℥ ii
Aquam calcem	*ad.* Oi

S.—Apply as a spray to the membranes every half hour for from 3 to 5 minutes at a time—*College and Clinical Record.*

Painful Pharyngitis.

Morphine sulphate	gr. iv
Carbolic acid	ʒ ss
Tannic acid	ʒ ss
Glycerin.	ʒ iv
Water	ʒ iv

S.—Paint the throat 2 or 3 times daily.—*Medical Press and Circular.*

Seasickness. — ROQUETTE recommends:

Antipyrin	gr. lxxv
Cocain hydrochlor.	gr. iss
Caffein	gr. iv
Strych. sulph.	gr. $\frac{1}{30}$
Spr. vini gallici	ʒ iiss
Aq. dest.	*ad* ʒ viii

S.—A tablespoonful before embarking and others during the day, or three during the twenty-four hours.—*Medical Press and Circular.*

Rheumatic Fever.—BRYANT prescribes:

I.—	Salicylate of soda	gr. viii
	Acetate of potash	gr. v
	Wine of colchicum	gtt. iii

S.—To be taken every 2 hours, and less frequently when the symptoms subside.

II.—	Salicylate of soda	ʒ i
	Tincture of opium	℥ ii
	Distilled water	℥ ii

S.—Rub the affected parts energetically.—*Nouveaux Remèdes.*

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., San Francisco, Cal.

Mortality for July, 1894.—The deaths registered in 79 town districts of the State, during the month of July, in a population of 777,020, correspond to an annual rate of 14.76 a thousand, the total mortality having been 961. 88 deaths were due to zymotic diseases, giving an annual rate of 1.36 a thousand. Of these, 4 were due to diphtheria, 25 to cholera infantum, 28 to typhoid fever, 10 to diarrhea and dysentery, 8 to cerebro-spinal fever, 4 to whooping cough, 2 to croup, 4 to intermittent and remittent fevers, 2 to scarlet fever, 1 to measles, and 0 to small-pox. 227 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.48 a thousand. Of these, 147 were due to consumption, 45 to pneumonia, 26 to bronchitis, and 9 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.17 and .68, respectively. 88 deaths resulted from diseases of the heart, 8 from alcoholism, 4 from erysipelas, 28 from cancer, and 434 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 591,000, was 15. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Petaluma and vicinity.

METEOROLOGY.

Summary for July.—*Temperature.*—The normal temperature of the State for July is 73°, the average for July, 1894, was 75°; a departure from the normal of +0.2°. The highest monthly mean was 105°, at Palm Springs, in the desert regions of San Diego county; the lowest, 53°, at Point Reyes; the maximum temperature, 123°, at Volcano Springs, on the 25th, in the desert regions of San Diego county; the minimum 35°, at Boca, in the high mountain regions of Nevada county, on the 27th. The absolute monthly range was 88°; the greatest local monthly range was 61°, at Turlock; the least, 18°, at Eureka.

Rainfall.—The normal precipitation of the State for July is 0.05 inches; the average for July, 1894, was 0.02 inches; a departure from the normal of −0.03 inches. The greatest monthly precipitation was 1.31 inches, at Adin; the least, nothing, at a number of stations.

Wind.—The prevailing direction of wind was westerly.

Unusual Features.—The unusual meteorological feature of the month was the excessive precipitation at Salton, in the desert regions of Riverside county, there having been .23 of an inch of rain measured at that place.—JAMES A. BARWICK, Director California Weather Service.

California—Tabular Statement for July, 1894.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn .... Cal.	80.5	104	62 0	----	----	----	----	T.	----	----	----	----	E.	Southern Pacific Company.
Berkeley .... "	57.7	80.0	50.0	69.0	52.0	17.0	0	0.00	83 0	17	14	0	S.	Obs. University of California.
Colfax .... "	76.6	98.0	58.0	----	----	----	----	0.00	----	----	----	----	E.	Southern Pacific Company.
Eureka .... "	54.4	64 0	46.0	59.0	50.0	9.0	1	0 02	90.0	3	18	10	N.W.	Weather Bureau Dept. Agr.
Fresno .... "	82.7	106	56.0	100	65 0	35.0	1	T.	34.0	28	3	0	N.W.	" " "
Indio .... "	95.8	117	80.0	----	----	----	----	T.	----	----	----	----	W.	" " "
Los Angeles .... "	67.0	88 0	51.0	80.0	54.0	26.0	1	T.	76.0	13	16	2	W.	" " "
Monterey .... "	60 4	74.0	50.0	----	----	----	----	0.00	----	----	----	----	S.W.	Southern Pacific Company.
Napa .... "	69.0	92.0	54.0	80.0	57.0	23.0	1	T.	69.0	16	15	0	S.	Station Napa Insane Asylum.
Oakland .... "	59 0	82.0	50.0	71.0	52.0	19.0	1	0.01	80.0	18	12	1	W.	Chabot Observatory.
Paso Robles .... "	71.0	102	44.0	90.0	52.0	38.0	0	0.00	33.0	30	0	1	W.	Agr. Ex. Station.
Red Bluff .... "	83.0	106	61.0	99 0	68 0	31 0	1	0 02	35.0	28	3	0	N.W.	Weather Bureau Dept. Agr.
Sacramento. .... "	74.0	104	51 0	90.0	57.0	33.0	3	T.	58.0	28	2	1	S.W.	" " "
San Bernardino "	75.0	102	48.0	94 0	56.0	38.0	1	T.	54.0	26	3	1	W.	A. K. Johnson, M. D
San Diego .... "	65.0	77.0	57 0	69.0	62.0	11.0	0	0.00	82.0	24	4	3	W.	Weather Bureau Dept. Agr.
San Francisco.. "	56 4	76.0	48.0	62.0	50.0	12 0	1	T.	88.0	18	11	2	S.W.	" " "
Santa Barbara.. "	62 8	78.0	52.0	71.0	54.0	17.0	1	0.12	78.0	27	3	1	W.	Hugh D. Vail.
Santa Cruz...... "	64.0	92.0	41.0	81.0	48.0	33.0	1	T.	----	29	2	0	N.W.	W. R. Springer.
Yuma .... A. T.	91.2	113	72.0	105	78.0	27.0	1	0.36	45.0	23	7	1	S.W.	Weather Bureau Dept. Agr.

Average humidity at Paso Robles is at 2 P. M. T. means a trace of rain. Blank (----) indicates data missing.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: SEPTEMBER, 1894

THE TRANSACTIONS OF THE STATE SOCIETY.

The annual volume of Transactions of the Medical Society of the State of California has just been issued by the Committee on Publication. Its appearance this year some weeks later than the previous issue is explained by the Committee as being due to causes beyond its control. The very efficient Chairman even asserts that there is no reason why the Transactions should not be ready for mailing by June 15th of any year. We do not deny the possibility that this result could be accomplished, but dilatory authors are numerous and delays more common than expedition. The discussions have been included in this issue, which adds to the value of the volume. The Committee again regrets the absence of an official stenographer, the cost of which is estimated at a very reasonable figure. As long, however, as the discussions are obtainable without expense or compliment to the Society, the propriety of expending money for an independent report, of certainly not superior character, will be questioned.

This volume, while maintaining the greatly improved character of the Transactions of the year 1893, bears evidence of still further improvement. The presswork is still poor, but the typographical arrangement is more pleasing. In the list of committees there are a number of blanks, which we understand represent appointees who were unable to qualify on account of delinquency. It seems strange that any one who has been an active member of a State Society for several years can afford to relinquish his association wherewith. In many cases this, no doubt, is more indifference than economy, but the result is none the less regrettable.

The general character of the present volume is good. There are no papers of remarkable originality or special excellence, but many are very good and of a thoroughly practical character, and all are worthy of publication. The Committee "cannot refrain from mentioning" that there were no reports from the following standing committees: Anatomy, Pathology and Pathological Anatomy, Dermatology and Venereal Diseases. This is not often excusable. When a member accepts the chairmanship of a committee, he is in duty bound to furnish a report, unless provided with good and sufficient excuse for dereliction. There is, however, some difficulty in finding chairmen for the various committees, some of which can only be filled by experts. It would, perhaps, help matters if there were some consolidation. Thus, the Committee on Anatomy might be merged with that on Surgery, and the Committee on Histology would not be missed if united with that on Pathology, with which it will always be closely related.

NOTES.

One Hundred Years in Business.

W. H. Schieffelin & Co., the well known Pharmacists, of New York, have just celebrated the 100th anniversary of their entrance into business. In commemoration of the event they have issued a neat brochure of 56 pages, with numerous photo-engravings, illustrative of their progress in earlier and in later years. The business was established in 1781, by Effingham Lawrence, but was bought in 1794 by Jacob Schieffelin, who had been his partner. During the 100 years that have since elapsed, the firm has been conducted in an unbroken line by members of the family. Perhaps one of the best evidences of the firm's stable and conservative character, is the fact that it has now in its employ ten persons whose periods of service range from thirty to forty years, and one who has been with them for forty-five years. There are a number of fac similes of checks, invoices, and accounts, dating from the last century. The fact of an unbroken and singularly successful business career for so long a period, is perhaps not surpassed by any firm that caters to the wants of the profession in this country.

Criminal Abortion.

In a recent issue of the *Medical Record*, Dr. Mary A. Dixon Jones writes most forcibly on the universal and increasing prevalence of criminal abortion. The author quotes many cases with their inevitably sad results, and dwells with special force upon the repulsive aspects of this degrading practice. The following passages are so forcible and so earnest in their truthfulness, that it would be well were they read by every woman: "There are thousands engaged in the work, reaping their rich harvests; and, at the same time, making a harvest of deaths. But the most deplorable fact is, that there are a multitude of mothers willing to assist, or, doing it continually. Who can tell the number of infant deaths? A holocaust—a great army of little children are destroyed. The loss of infant life is amazing. But, if possible, there is yet a greater evil. The woman who entertains such thoughts, who has such intentions, the mother who thus seeks the destruction of her own child, thereby perjures and blackens her own soul, and demoralizes her whole moral being. It is a prostitution of all her higher nature. To think of a mother contemplating the murder of her own child; studying to destroy the being that rests nearest to her own life, and bound to her by every tie of kindred, love, and interest. What a soul-staining! Could anything be more debasing and blunting of all the finer feelings and affections? She who in secret broods over such thoughts, who has such intentions, is making of that child and of her children murderers. The child must take on the then condition of the parents, moral and physical. It is as much a part and parcel of the parent as is the lower order of animals, where procreation is by subdivision. I could imagine that he who is guilty of signal crimes and murderous intents is born of such a woman—a woman who for days was trying to compass his murder, and was seeking opportunities to do it secretly and successfully. What reason do women give for so doing? Some say, 'It is inconvenient to have a child!' It should be their greatest happiness. Others say, 'They have too much to do, too many claims upon them, the demands of society, fashion,' etc. But this is their first duty, and should be nearest and dearest to them. Others say, 'A child is too much trouble.' Ah! an infinite source of delight should the care of her little one be to any true mother. Others again declare 'they have not the means to support it,' or that 'they want, for a while longer, to take their pleasure;' 'at some more convenient season,' say they. A burglar who takes a man's life wants the money, because work is inconvenient, he has so many demands upon him, and this may relieve him from care and trouble, and enable him, a while longer, to take his pleasure. There is more similarity between the two than we dare trace out. Women are not taught to understand these things, they are not sufficiently instructed as to the wonders of their own being, or even of the simplest laws of life and health. They do not sufficiently know the great mysteries and beauties of life, that from the moment of conception a child begins to live, that as soon as there is a combination of the two elements, it is a human being. If not then, will any one say when life begins, at what time the soul meets the body? I maintain that the destruction of this new being, even in the earlier periods of existence, is as much murder as it would be in the latter months of pregnancy, or in the earlier periods of infancy. I hold that it is as much murder to destroy a child that will be born next May as one that was born last May." In conclusion, the writer says: "I maintain that all this work is murderous, unprofessional, and degrading to the high office of a physician. A physician stands as a preserver of life, and should be the embodiment of honor and high morality."

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, August 7, 1894.

The President, W. F. WIARD, M.D., in the Chair.

DR. G. L. SIMMONS, JR., read a paper on the "Pasteur Institute, and Incidents of the International Medical Congress."

DR. W. A. BRIGGS exhibited a "suture stay" for the repair of lacerated perineum. The apparatus consists of two small steel tubes through which a wire is passed. When the suture is united it acts as a clamp maintaining the walls of the laceration in perfect apposition.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, July 10, 1894.

The President, W. WATT KERR, M.D., in the Chair.

New Members.—W. M. THORNE, M.D., and J. A. BLACK, M.D., were duly elected members of the Society.

American Medical Association.—The Committee on Entertainment of the American Medical Association, through its Chairman, DR. C. G. KENYON, presented a detailed report. A reception had been given to the Association at Pioneer Hall on June 5th, which had been an eminently successful affair. For this occasion a silver badge representing the Golden Gate and the Setting Sun, surmounted by a Golden Bear, was designed and manufactured by Geo. C. Shreve & Co., one being presented to each guest as a souvenir of the occasion. On motion, the report was received, and a vote of thanks unanimously tendered the committee for its very efficient work.

DR. H. GIBBONS, JR., of the sub-Committee on Finance of the Committee of Arrangements of the American Medical Association, reported in the matter of the Society's contribution that there would probably be a dividend of $700. payable on their original subscription.

DR. D. W. MONTGOMERY, in opening the discussion on "The Contagiousness of Tuberculosis in Relation to Public Health," said: The general practitioner of extensive experience was more capable of discussing this subject than a specialist. The contagiousness was, perhaps, the most interesting point in this disease. A new interest had been created on account of Koch's discovery of the tubercle bacillus. Professional opinion was unanimous as to the cause of the disease. It was difficult to say how contagion was carried, and it is as yet hard to decide whether any particular good had resulted from Koch's discovery. There is said to be a decrease of the disease in Philadelphia, and this may be due to many tubercular cases seeking more favorable climates in Colorado and in Southern California. They go to these places and they die there. The public must be educated up to the point of hygienic care of the affected. Tuberculosis is much more contagious than leprosy, yet people have a far greater dread of the latter disease. For years the profession had said that consumption was not contagious. Consumptives, unchecked, bequeath their clothes "by will" to various friends and relatives. If public sentiment were aroused, it would be a powerful lever in decreasing this disease. This force has decreased leprosy, especially in Norway. The process, however, for driving this knowledge into the public was very slow. Regarding the liability of contracting the disease from food, the speaker said that the viscera may be a source of contagion, but he thought it very improbable that the disease would be contracted from eating beef. Dr. W. H. Welch, of the Johns-Hopkins University, believes that the low death rate amongst the east-side New York Jews depended on their extra caution in the use of meat. The more intimate association of our race with animals might also explain our increased liability, as Hebrews seldom associate with them. That milk may be a source of contagion seems probable. In several cases cows known to have been diseased seemed to have caused tuberculosis in children. The sputum is the great source of infection, and information here is, perhaps, more necessary than in any other of the causes. Sputum is found everywhere, and when dried and disseminated through the atmosphere, was a ready source of contagion. Regarding the great prevalence of the disease, it had been found at the Vienna Hospital that in 100 autopsies 66 of the patients were tubercular; of these, 35 had died of the disease, while in 10 it was latent.

Dr. H. M. Sherman, speaking of the prevalence of tuberculosis, said there was 1 case in every 286 of those affected between the ages of 1 and 17 years, in San Francisco. There was one case in which he felt tolerably certain he could trace the infection from a tubercular step-father to the child.

Dr. J. Rosenstirn said the discovery of the bacilli, no doubt, tended to decrease contagion, and this was a most important step. If the danger of contagion could be impressed upon the general public, and upon the management of public institutions, it would be a great step in advance and the benefits would be immense. No hygienic measures were adopted in such Southern California institutions as he had visited. The cuspidors were in a fearful condition; sputum was on the floor, etc., and the general want of care, and negligence was a pitiful sight. Patients there should be warned by placards on the walls, and physicians in charge of public institutions should be held responsible for these conditions. The comparison of Dr. Montgomery of the relative contagiousness of leprosy and tuberculosis was absolutely correct. If we were as rigid in the management of cases of tuberculosis as we are in cases of leprosy, people would probably rebel, and we ought, therefore, to relax our efforts. These should rather be directed to hygienic measures and to prevent the spread of the disease. Physicians should report their cases to the Medical Health authorities. The latter should then send monthly circulars to these people, instructing and warning them; they would thus be more or less rapidly educated. It takes a long time to thoroughly impress these views upon the people. Dr. Sherman's statement that 1 in 286 cases of disease in children were tubercular, must relate to surgical tuberculosis only.

Dr. Phillip K. Brown said there was a society in Philadelphia that issued two kinds of circulars and distributed them everywhere, among factory employes, mill hands, etc. One circular stated the methods for avoiding contracting the disease; the other directed how to avoid conveying the disease to others. Michigan has now a law requiring physicians to report all tubercular cases to the Health Officers. The speaker believed the profession responsible for the slow moulding of public opinion. A prominent Boston physician was opposed to the public reports because it causes the patient to lose all hope, and therefore lessens his liability to recover.

Dr. E. E. Kelly thought the origin of the Philadelphia Society was an ordinance requiring physicians to report all tuberculous cases to the Health Office. According to many investigators, dry dust, sputum, etc., are great carriers of the contagion. It was therefore necessery to warn people to destroy these sources of infection. Rooms where such patients die should be disinfected by the Sanitary authorities. He believed he had seen patients who had contracted the disease from living in houses where cases had died. He thought that the public report of all tubercular cases was going a little too far. Thorough milk inspection was certainly desirable.

Dr. Montgomery said he thought Dr. Sherman meant one in 286 of all cases between the ages given were tuberculosis.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, June 16, 1894.

The President, John F. Morse, M.D., in the Chair.

In the absence of **Dr. W. S. Thorne**, his paper, "A Report of a Case of Cesarian Section" [published at p. 550], was read by the Secretary.

Dr. W. Watt Kerr: I can probably add a little more to the history of this case, having been in attendance with Dr. Thorne. The patient was an Italian woman, rather short in stature, under 5 feet, who had been sent to the hospital from San Rafael. Labor had begun Tuesday, the woman being attended by a midwife. As time wore on and no progress was made the midwife became frightened and sent to San Rafael for a physician. Dr. W. J. Wickman arrived at the bedside at 1 P. M. Thursday. Recognizing at once the nature of the case he advised her removal to San Francisco for operation. This was finally agreed to, and late Friday afternoon she was brought into the hospital, the operation being performed early Saturday afternoon. On making a vaginal examination the promontory of the sacrum was found far forward, much resembling the child's head, and the opening would just admit two fingers. The operation was done without mishap, the placenta fortunately being untouched when the uterus was opened. Ergotin was given, and before the patient was removed from the table the uterus was firmly contracted. The total loss of blood from vagina, placenta, and operation was certainly very small, not amounting to more than two ounces.

Dr. G. F. Shiels: There is one point or question not touched by the gentleman in this very interesting paper; that is, Why was the uterus allowed to remain? The impossibility of a natural birth ever taking place was established, and had the uterus been removed there would have been no further pregnancies. Why subject the patient to the danger of another section? The incision was large enough, and it would have been best to have removed the uterus and ovaries at once; it would not have increased the danger to any great degree.

Dr. Kerr: There are two reasons why this was not done: one was the patient's exhausted condition; another was the fact that neither the husband nor any relations were present to give their consent. It was discussed, however, but deemed best to get the husband's consent first. Dr. Thorne contemplates removing the uterus and ovaries, and is only waiting for the consent of the relatives to do so, but this may not be so easy to get, both from social and from religious reasons.

Dr. Geo. Gross: I believe with Dr. Shiels that it would have been proper to have extirpated the uterus *in toto*.

Dr. M. Hildebrand: Under the condition of exhaustion, as stated by Dr. Kerr, I think I would have hesitated also; but think if consent could have been obtained, the ovaries simply should have been removed instead of making a total extirpation, as suggested by Dr. Shiels.

Dr. Geo. Gross read a paper on "Symphysiotomy; with a Report of a Case." [Published at p. 538.]

Dr. Dudley Tait: I have listened with satisfaction to the two cases just reported, and think that in both instances the proper method was used. Regarding symphysiotomy, more than a century has elapsed since the French obstetrical surgeons brought it to the front, and for more than a century it has been ridiculed and deemed illogical even by the French school. Its rehabilitation may be credited to the glory of the Italian school. At the recent International Congress at Rome its great value was dwelt upon by several eminent men, especially Morisani and Leopold; and that there is value in symphysiotomy cannot be doubted. The statement of Leopold that it could not be adopted by the general practitioner has been proven not so. Looking over the medical journals of the past two years containing cases of symphysiotomy performed by general practitioners, we find the list monotonously long. Some contend that there is an irreparable lesion at the sacro-iliac articulation; this is false where the separation does not exceed 5 to 6 cm.; therefore the statement of the "peculiar gait" does not hold. Cases are on record where symphysiotomy has been performed three times on the same person. Symphysiotomy will supercede and eradicate basiotripsy, cephalotomy, and perforation. In a case of pregnancy not at term where the conjugate is less than 7 cm., premature labor should be induced. If the pregnancy is at term, or labor has begun, complete dilatation should be awaited without rupturing the membranes, and version attempted, followed by extraction. If these measures prove unsuccessful, then perform symphysiotomy. The indications for the cesarian operation begin where those for symphysiotomy end; and each has its distinct indications based on the diameters of the pelvis. However, when both operations are permissible, I would give the preference to the cesarian operation for several reasons.

It is a very simple and easy operation. No time is lost in determining the proper term of interference. The risk is not greater, and the results are equally good, if not better. Sänger reported a series of 12 cases, all followed by recovery. The after-treatment amounts to nothing, and gives no anxiety.

Dr. G. F. Shiels: I do not believe in statistics; they can be made to prove anything. This comparison of woman to the lower animals is all wrong; the one is in an upright position, the other not. In woman the whole upper part of the body is held or supported on the sacro-iliac synchondrosis. In older women the joint may be ossified and it may be so even in younger ones; so the question of age enters here. If symphysiotomy is performed and the pelvis spread, we run great risk of injuring the sacro-iliac synchondrosis. As this operation becomes more and more popular, we shall see many cases of irreparable injury done. In Dr. Gross' case there was no motion after the operation. Even if we find slight motion resulting from it and watch the case we will find after a time, that it increases, and loss of power in standing and locomotion to a certain extent will be manifest. Before doing the operation it would be best to ascertain, if possible, the condition of the sacro-iliac synchondrosis. I am inclined to think that we should put a brake on this "fad" of symphisiotomy. The greatness of the men who have performed it, has nothing to do with the case. As an example, take Lister: For years he swore by the spray, and subsequently he assumed a directly opposite position.

Dr. W. Watt Kerr: Symphysiotomy is a very good operation where we can rely on it. It is based on the size of the pelvis, but we have also an unknown quantity, the child's head and its bony formation. We cannot estimate this, and if, after a symphysiotomy, we have to do a section, the first operation is no step to the second. If we cannot deliver with the forceps and the child is all right, we would dislike to do symphysiotomy and then a laparotomy. The danger is slight from cesarian section, and we should certainly look for a good recovery. That the symphysis pubis does unite under favorable conditions, we must admit. In one case in my own practice, while delivering a primapara with forceps, the pelvis widened and the giving way could easily be felt. Two weeks later parts of bone perforated the urethra, causing a fistula. There was some lameness for a time, but finally a complete recovery ensued.

Dr. Gross: The movement of the pelvis gives us the solution of the question. We would have to separate the pelvis 3 cm. to break the sacro-iliac synchondrosis, so, by measuring, we know just how far to go. Now, as we have better antiseptic precautions, we get much better results. In certain cases, symphysiotomy is the only operation; take, for instance, the after coming head. Symphysiotomy is far simpler than cesarian section and no special appliance is necessary. The case spoken of by Dr. Kerr shows that nature teaches us some things, and that the healing process will go on if proper care is taken.

Dr. W. F. Arnold, U. S. N., read a paper on "Two cases of Unclassified Infection" [*vide* Medical Times, vol. viii, p. 469].

Dr. D. W. Montgomery: These are very interesting cases. Some years ago Dr. Carpenter brought to me some sections of liver and kidney. On examination they were full of holes, as the doctor describes, and under the microscope no bacilli were found. The sections had been removed from the body of a prostitute who had been brought into the morgue. She was very edematous, with a brawny skin, and though the organs were so badly decomposed, she was yet warm. Dr. Sherman, who had seen a case in Bellevue, saw this case also. Bremer reports the case of a prostitute dying from malignant edema. The death is one of the utmost distress, with perfect consciousness to the last. Dr. R. W. Taylor, of New York (I believe it was), operated upon the deep urethra; the patient became rapidly edematous and died. When Dr. W. E. Taylor was Coroner here, there was a case brought into the morgue, in an advanced state of decomposition and still warm. Dr. Taylor was loath to believe that it had been dead so short a time. A man in San Rafael fell and sustained a compound fracture of the leg, and in a short time died from a rapidly advancing edema and the other symptoms. The edema advances with tremendous rapidity almost at a visible speed; it is impossible to head it off by an amputation. Its importance from a medico-legal aspect is shown, as people might keep a body a long time and then warm it. It is important to note that if a person is wounded by a rusty nail in garden mould or in the moist low soil of gardens, etc., and a rapid case of blood poisoning sets in, it is probable that it is a case of malignant edema. The most radical measures should be taken to insure absolute cleanliness of the wound.

Dr. Arnold: Dr. Welch's report in the *Johns Hopkins Bulletin*, embraced some hundred cases. Many cases occurred during the Crimean war, and were frightful. The case reported by R. W. Taylor was undoubtedly a true case of malignant edema. If we inoculate a mouse with garden mould the lesion is local. The bacillus is one of many that discolorize by Gram's method. My measurements were very close. Where we have a gas in connection with edema, it is of the inflammable type, marsh gas type, for instance.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular meeting, July 2, 1894.

The President, F. Z. Bazan, M.D., in the Chair.

New Member.—W. M. Thorne, M.D., was duly elected a member of the Society.

Dr. Frank Fischer read a paper, entitled "Infantile Spinal Paralysis; a Study of its Etiology." [To be published.]

Dr. W. F. Cheney said that in studying the etiology of any disease, the natural method is to reason from symptoms back to their causes. In infantile spinal paralysis, the most prominent feature is the paralysis. The cause of the paralysis was discovered in 1886, when it was shown that there were certain constant changes in the spinal cord. The ganglionic cells of the anterior horn are destroyed and the horn itself is replaced by fibrous tissue. The next question is as to the cause of these changes. It is generally accepted to be an inflammation, whence the name poliomyelitis. The disease has an acute onset, with elevation of temperature, restlessness, etc. As for the cause of the inflammation, several things have been suggested—hemorrhage, traumatism, infectious irritants. That hemorrhage might be the cause of the degeneration is an old notion. It may be due to the influence of very hot weather or sudden cooling after intense heat. Overexertion, such as rapid walking, leads to an increased blood supply of those parts of the cord presiding over the lower extremities. It has been thought that there might be some infectious agent, such as there is in pneumonia, scarlet fever, etc., or some particular poison. Such has never been found. However, it is possible that ptomaines from some particular organism might have a selective action. The cause, whatever it may be, is almost certainly physical, for psychical causes probably have no effect. There is no evidence that reflex convulsions cause inflammation of the centers. It is easier to assume a congestion leading to a hemorrhage.

Dr. L. C. Lane said the history of such cases is characteristic. The mother will say, "My child was perfectly well when it went to bed, and awoke in the night with fever. In the morning it couldn't move one of its legs." He referred to a case in which the paralysis affected one leg and the opposite arm. Often the paralysis is not observed for some days. In regard to treatment, he had learned from his cases that it is not very satisfactory. In many cases, in spite of all that was done, the leg remained useless, though it generally grew fairly well. In a few recent and mild cases mechanical appliances are occasionally of benefit, but in severe cases they are rather a detriment, because of lack of power to use the limb. The constant current has benefited some cases.

Dr. Basil Norris referred to a case in a mulatto child, 11 or 12 months old, whose father was a messenger in the War Department. This child was a great crawler. He had noticed the same thing in other cases. Vigorous children, eager to get about, are restrained from getting on their feet too early, whence their crawling powers increase. It is probable that the irritation of locomotion in the prone position has some bearing on the causation of this disease. He advised mothers to let their children walk as early as possible. If the paralyzed muscles respond to the galvanic current, even if they fail to contract with the faradic, the prognosis is favorable.

Dr. Stanley Stillman said that as far as crawling is concerned, it seemed confirmative of the theory of congestion. He had seen a child crawl faster than another could walk. The pendulum has swung a little too far when there is sought an infectious cause of such a disease as infantile spinal paralysis. It is impossible to account for the clinical history and the peculiar localization of the lesion on any such supposition. The results of treatment are also confirmatory of this idea. If the cases show a tendency to get well, treatment will help a little, but those cases will get well anyhow. If not, treatment by electricity, massage, etc., etc., will do next to nothing. The whole subject of extravasation of blood in children is not settled. In Potts' disease, etc., there is probably a slight extravasation, to which an infectious agent is added. The cause of poliomyelitis anterior is mechanical rather than infectious.

Dr. S. M. Mouser said he was inclined to think the notion of infectiousness in this matter a little far-fetched. He should like to see the microörganism. The instance cited in the paper, in which 1 per cent. of the population were affected, is probably better accounted for by assuming some endemic cause rather than a direct infection.

Dr. R. W. Murphy referred to a case in which the mother had syphilis, which might have had something to do with it. In two other cases the mothers were addicted to alcohol during pregnancy. These cases are most common, as the paper has said, in summer. In some there is a malarial element. Probably the changes are due to hyperemia rather than hemorrhage. He had found the iodide of potash to do more good than anything else; also, of course, employed rubbing, bathing, out-door exercise, etc.

Dr. C. F. Griffin said the suddenness of the onset of the disease is an argument against the infection theory. The younger the child, the shorter the period of incubation. The paralysis is not the disease, but a sequel. We must not ignore the fever, which is the strong argument for the infectious nature of the disease.

Dr. Fischer, in closing the discussion, said: The question, "Why, if the disease is infectious, does it not attack adults, as do measles, scarlatina, etc.?" might be answered by the fact that occasionally poliomyelitis anterior does attack adults.

SPECIAL CORRESPONDENCE.

LONDON.

The Hot Wave in New York.—Naupathia.—London as a Medical Center.—Its Medical Museums.—Jonathan Hutchinson's Clinical Museum.—The Museum of the College of Surgeons.—Unique Specimens.—London Hospitals.—Lawrie on Chloroform Anesthesia.

California may labor under the disadvantage of being remote from New York city, and, conversely, the latter city suffers a similar disadvantage in being so remote from California. The burden of my plaint is essentially climatic. The heat during the latter part of my sojourn in New York city was intolerable, and cases of insolation were rampant. I can hardly believe that any unacclimated person escaped the minor manifestations of sunstroke, such as head constriction, nausea, and malaise. The pathogenesis of insolation is certainly obscure, although there is good reason to suppose that it is merely a mode of intoxication, provoked by suppressions of the cutaneous secretions; at any rate, free perspiration will surely inhibit its manifestations.

Before crossing the ocean, I fortified myself against impending sea-sickness, by consuming all the literature I could possibly obtain on the subject. The following was the resultant knowledge which I elicited. While authors differed materially in the pathogenesis of the affection, the opinions were unanimous in signalizing sea-sickness as a very disagreeable condition. It is a sad commentary on scientific medicine, when one can conscientiously say: "My physician can give me nothing to cure sea-sickness." Empirical therapeutics shares the same rebuff when antithetic remedies are accorded like results. While one physician will solemnly recommend his patient to go on board with an empty stomach, another will give the sapient advice to go on board with a full stomach. Another recommends ice, and still another hot water. The results usually tally, however, insomuch that the patient generally follows the advice of his physician and gets sea-sick. Bromo-chloral, a mixture of bromide of potash and chloralamid, has lately been vaunted, on good authority, as a sovereign remedy for *nausea marina*. Its action is similar to that of any other hypnotic. It makes the recipient oblivious to external impressions. It is no more a specific than opium or any other narcotic. There is a time-honored tradition in medicine that must be revoked, a tradition which specifies sea-sickness as a good thing for the health. If the sequences of sea-sickness could be enumerated by scientific inquiry, the fallacy of this tradition would only be more emphatic, aside from the fact, that it would prove more rational to evoke, in proper dosage, the essentials of sea-sickness by the administration of emetics.

London is unquestionably a great commercial center, but not a medical center. There are too many medical subcenters with no inclination toward centralization, a fact which the American physician going to London at once perceives. The distances between the educational institutions are so great, that the post-graduate courses in medicine are very poorly attended. To the American physician, who contemplates taking a post-graduate course in London, I cheerfully offer the following advice: Study the topography of the city for at least six months, and after you think you have mastered it, study it another six months, then attend a post-graduate course in New York. London has this insuperable advantage over New York, to the superficial observer: it has an environment of respected medical antiquity. Comparisons are, of course, invidious; for while the United States can be proud of the eminence attained by her medical men, she must concede to Great Britain many advantages in the direction of higher universal medical education.

The medical musea in London are manifold, each hospital usually possessing a very creditable collection of carefully prepared specimens. There are two musea, however, to which I will direct attention; viz., the Clinical Museum of Jonathan Hutchinson and the Museum of the Royal College of Surgeons. The former is the private property of Jonathan Hutchinson, a man of versatile attainments, equally renowned as a surgeon, oculist and dermatologist. The arrangements in this museum are certainly novel. Part of the plan is to gather from various sources published illustrations of disease and to bring them together in classified juxtaposition. There are no jar specimens. No one should go to London without visiting this museum. Here may be seen the original drawings, illustrating the characteristically deformed teeth of hereditary syphilis and mercurialism. The museum of the Royal College of Surgeons is in reality a series of musea. The museum devoted to the zoölogy of invertebrated animals is not less complete than the museum showing the osteology of extinct vertebrata, nor more complete than the medical museum, which is truly a marvel in arrangement. One could profitably devote months to a study of its contents and yet find at the termination of that time that he had only begun his work.

The interest attached to these specimens is not only didactic, but historic. Let me cite only a few specimens, jotted at random: (1) One hundred needles, extracted from the body of a Danish Jewess. (2) An iron gun breech and screw, which, by the bursting of a gun, were driven into the head of an officer in India. They remained lodged in the ethmoidal cells and nasal fossæ, with part of the breech and rivet protruding through the fore part of the palate into the mouth, till the time of the patient's death, which happened 7 years after the accident. (3) An elastic catheter, removed from the connective tissue between the uterus and rectum, where it had remained for 20 months after having been placed there by a quack, for the purpose of producing an abortion. During the time of its lodgment, the patient presented characteristic symptoms of hip-joint disease. (4) Cast of a stone removed from the abdominal cavity. The patient, a sailor, suffered from stricture of the urethra. He was in the habit of passing a glass bottle into the rectum for the relief of retention of urine. One day retention of urine occurred, and, not possessing a bottle, he inserted a belaying pin. This not having the desired effect, he went on shore, and, picking up a pebble the size of cast, he passed it into the bowel. This stone, after unsuccessful attempts at removal, passed through the ruptured bowel into the peritoneal cavity. (5) Three clasp knives swallowed by a soldier and voided *per anum*. Human ostriches are not uncommon even outside a dime museum. The other day an inquest was held at the County Asylum, Lancaster, where an individual swallowed 192 flooring nails, weighing 1 pound, 9½ ounces.

The hospitals in London are numerous. Some are modern, but many of them are old. The former, of course, embrace all the improvements of modern hospital construction, while the latter are superannuated and are naught else but foci for septic infection. It is not difficult to presage the evolution of the future hospital. It will be readily separable into its constituent parts, so that ideal cleanliness can be attained. I visited the Brompton Hospital, with the hope of eliciting some information relative to the treatment of consumption. This hospital is simply an asylum for the unfortunate sufferer, for although they have distinguished physicians, such as Williams and Bruce, on the visiting staff, the latter assured me they did nothing in the direction of medication, sustaining the patient by suitable nourishment only, and thus combating the disease.

At an extra meeting of the Royal Medical and Chirurgical Society, Surgeon Lieutenant-Colonel Lawrie presented a communication on chloroform anesthesia. The propositions set forth in the paper were essentially as follows: (1) Chloroform has no direct action upon the heart. Proof of this was demonstrated by an enlarged photograph of a tracing of a cross circulation experiment, in which chloroform was sent to the heart alone and produced no effect whatever. (2) The usual effects of chloroform are produced by its action on the brain centers. (3) Chloroform anesthesia alone is free from risk. The general tenor of the paper was to show that it is useless and dangerous to take the pulse as a guide to the effect of chloroform. He contended that the experiments performed by the Hyderabad Commission proved that death was due to respiratory failure, and that the essential point to remember was that, during chloroform administration, the respiration must be watched, and that the condition of the pulse was quite subsidiary. The author admitted that chloroform irritates and destroys protoplasm in the same way as any other irritant when injected into the muscle; but this question could be altogether ignored in chloroform poisoning by inhalation. The communication evoked considerable discussion among such men as Gaskell, Brunton, Horsley, Newman, and others. Some occupied themselves with the demolition of the propositions set forth by the author of the paper on the ground of incomplete experimentation. Others contended that the heart and not the respiration should be watched; a statement which was vigorously opposed. I do not remember anyone having the hardihood to say that both should be watched. The discussion was an unquestionable demonstration of the fact that laboratory and clinical results do not always tally. One individual present justified his right to speak beyond the usual time allotted for discussion, on the grounds that he was present when chloroform anesthesia was first used in battle. This personal reminiscence was undoubtedly of great interest to the speaker, but, failing to arouse any enthusiasm among the members, he was kindly reminded by the President to speak on, and not about, the subject. At this meeting I do not recall anyone present congratulating the author on the excellence of his paper; in fact, the discussion was interesting because it was brief. A medical man who has truly something new or original to say is what I would term dyspneic, while his long-winded antithesis suffers from mental sterility and vocal incontinence. Medical meetings are frequently prosaic affairs, for the reason that they aggrandize the speakers and ignore science. The limit placed on discussions cannot be too short. Communications to medical societies should be divested of their usual ornate raiment. The delectable pith, conclusions, without its unnecessary accompaniments, is quite enough.

A. ABRAMS.

LONDON, June 15, 1894.

CORRESPONDENCE.

BRISTOL.

[FROM OUR OWN CORRESPONDENT.]

The Sixty-second Annual Meeting at Bristol.—Its Success.—A Defect in the Organization of the Association and its Dangers.—Epidemic Influenza and Bacteriology.—Diphtherial Antitoxin.—"The Ladies."—Visitors.—Shall we Meet in Canada?

The sixty-second annual meeting of the British Medical Association at Bristol, though not a large one, was one of the most agreeable of the many which I have attended. The arrangements made by the local committee were most admirable, both in what concerned the sectional work and the social aspects of the meeting. The greatest credit is due to the local General Secretary, Dr. Markham Skerritt, physician to the general hospital, for the excellence of the provision which the organization of which he was the moving spirit had taken so much trouble to make. The only disagreeable feature of the meeting—for the weather, though uncertain, might have been worse—was the success which attended the efforts of a small clique to capture one of the general meetings at which the business of the Association, by a by-law which has become an anachronism, is supposed to be transacted. Immediately after the President, Dr. Long Fox, had delivered his opening address, the meeting adjourned from the morning was resumed, but it was then close on 10 P. M., and the greater part of the audience melted away, the majority to visit a conversazione given by the exhibitors in the "Annual Museum," an occasion which afforded an excellent opportunity to inspect the exhibits without devoting to that purpose some of the precious hours of daylight which the local committee had filled with engagements of business or recreation. In a very thin assembly of 40 all told, resolutions were passed committing the Association to a particular policy on questions on which there is known to be much difference of opinion, and as to which the time is not ripe for decision.

The next annual meeting of the Association is to be held in London, and there is a very strong feeling that unless something can be done to revise the regulations for general meetings before that, the Association will run the chance of being made a ridiculous spectacle for the metropolitan public. It should be recollected that the affairs of the Association are, under the new constitution, conducted by a Council elected by the branches at their annual meetings; the Council appoints committees, and it would only be according to constitutional precedent if these committees reported to the Council. Instead of this we have the anomalous state of things at present existing, under which these committees send in reports to the Council, by whom they are presented to the general meetings. The final absurd result is arrived at that the labors of a year, carried on by a committee specially selected by the Council, which itself is elected by an elaborate franchise designed with great care to insure complete representation to all the members of the Association who choose to avail themselves of the franchise, is kicked over after a few minutes discussion by a catch vote in a meeting of half a hundred persons whipped together perhaps in the interest of some particular fad-monger.

The address in medicine was given by Sir Thomas Grainger Stewart, who had attended at Windsor during the previous week to receive the honor of knighthood. The Professor of Medicine in the University of Edinburgh was given a particularly hearty welcome, and his address, which was taken up with the subject of epidemic influenza, was listened to with much interest. The sneering tone in which much recent bacteriological work is commonly spoken of in this country by "the leaders of the profession," finds an echo among the rank and file engaged in general practice in country places, and Sir Grainger Stewart's frank acceptance of the bacteriological discoveries as to influenza will have a far-reaching effect, when it is seen that he relies upon them, to a large extent, not only in making suggestions as to prophylaxis, but also in seeking to explain the symptoms and complications of the disease.

In the Pathological Museum, which was arranged with much skill in a large room in the University College, was a collection of cultures of microörganisms, pathogenic and non-pathogenic, which had been prepared in the temporary laboratory of the British Institute of Preventive Medicine. This was one of the most complete collections ever brought together, and comprised a quite wonderful series of chromogenic bacteria. The cultivations were made by Mr. Plimmer and Dr. Blaxall, and Dr. Ruffer, the Director of the Institute, was also present and assisted in the demonstrations, which were given twice a day. I may digress a moment to say that the first report of the Institute, issued recently, states that it is hoped that the diphtheria antitoxin may shortly be prepared at the Institute in quantity sufficient to render it possible to supply all demands. The trials already made have been most successful, and there can be little doubt that when the antitoxin can be taken into general use it will shortly be recognized, even by the most pig-headed anti-vivisectionists, that bacteriology and bacteriological chemistry have in this, presented humanity with a real remedy for the terrible scourge which seems capable of defying the best sanitary precautions. It is a curious irony that at this very meeting at

Bristol, the Section of Public Medicine discussed at some length the question whether diphtheria has any connection with insanitary conditions; it is true that the general opinion was in favor of an affirmative reply, but the mere fact that it was thought necessary to raise the question shows how near despair our sanitary officials have come in their task of attempting to limit the spread of the disease in towns.

This was the first occasion on which ladies (with the exception of two ladies elected many years ago) had the right to take part in the discussions of the sections. The privilege was claimed by several ladies in the Section of Obstetrics and Gynecology, where Mrs. Sharlieb, M.D., who practised at one time in India, read a very excellent paper on hysterectomy. But in the Section of Medicine they were silent, in spite of the pressing invitation of the President, Dr. Frederick Roberts, who invited them to contribute to the debate on the subject of functional diseases of the heart, on the ground that they and their sisters had been, at one time or another, responsible for many functional disturbances of the organ. This sally was much applauded, and appeared to have been taken in good part by the ladies themselves.

Among the prominent men who attended the meeting were the President of the Royal College of Physicians of London (Dr. Russell Reynolds), and Sir Spencer Wells, who, I regret to say, appeared to be in very indifferent health. We had the pleasure of welcoming a considerable number of visitors from the other side. Among others, Dr. Geo. M. Gould, the editor of the *Medical News*, Dr. Risley, Dr. Osler, Dr. de Schweinitz, and Dr. Northrup, from the United States, and Dr. Blackader, and a numerous contingent from Montreal. There was some talk of the possibility of an invitation to meet, before many years are over, in Montreal, and if the difficulties which the length and cost of the journey appear to interpose can be shown to be less serious than is generally supposed, there is every probability that the invitation, if given, may be accepted.

REVIEWS AND NOTICES.

THE F. A. DAVIS CO., of Philadelphia, will in September issue a new book on "Practical Urinalysis and Urinary Diagnosis," for the use of practitioners and students. The book will contain numerous illustrations, including colored photo-engravings. Charles W. Purdy, of Chicago, is the author. This work will be in one volnme, of about 350 crown-octavo pages, in two parts, subdivided into twelve sections, and an appendix. Part I is devoted to the general subject of Analysis of Urine; Part II is devoted to Urinary Diagnosis. In the appendix is presented the highly important subject of Examination of Urine for Life Insurance. This is the first American work of a comprehensive character, for more than a decade, in this department of practical medical science.

ESSENTIALS OF PRACTICE OF PHARMACY ARRANGED IN THE FORM OF QUESTIONS AND ANSWERS, PREPARED ESPECIALLY FOR PHARMACEUTICAL STUDENTS. Second edition revised by Lucius E. Sayer, Ph.G., Professor of Pharmacy and Materia Medica of the School of Pharmacy of the University of Kansas. Saunders' Question Compends, No. 18. Philadelphia: W. B. Saunders. pp. 200. Price, $1.00.

We are pleased to see that the early appearance of a second edition proclaims the success which we hoped for this work. The present edition, besides bringing the text to correspond with late editions of the United States Pharmacopeia, also contains additional information regarding drug and plant analysis, formulæ of organic carbon compounds used in medicine, testing of inorganic chemicals, etc., all of which enhances the value of this already useful manual.

HEWSON'S ANOMALY BLANK. Devised by Dr. A. Hewson, of Philadelphia. P. Blakiston, Son & Co., Philadelphia, Pa.

This blank is for the use of dissectors and is designed for recording any anomalies or variations that may be met with. The blank is arranged so as to designate the name of the dissector and the general characteristics of the subject; then spaces are provided for noting systematically any peculiarities in the various tissues and organs of the body. These blanks are already in use in the dissecting rooms of Cooper Medical College and in the Medical Department of the University of California. The publishers state that they have supplied them to thirty-three medical colleges. As they are designed particularly to be used with Morris' Anatomy, the publishers offer to supply them in any required number free of charge, inserting the name of the professor or demonstrator and of the college.

A TEXT-BOOK OF THE DISEASES OF WOMEN. By Henry J. Garrigues, M.A., M.D., Professor of Obstetrics in the New York Post-Graduate Medical School and Hospital; Gynecologist to St. Marks Hospital, New York City; Gynecologist to the German Dispensary in the City of New York, etc. With 310 engravings and colored plates. Philadelphia: W. B. Saunders. Price, cloth, $4; sheep, $5.

This work consists of two divisions—the one devoted to the development of anatomy and physiology of the female genital organs, to etiology, examinations and treatment in general, and to menstruation and leucorrhea; the other to a consideration of the various special diseases of women, an arrangement especially adapted to the requirements of the student and of the general practitioner. Criticism is disarmed by the judicial, thorough, comprehensive, and scholarly treatment of the entire subject. As a text and reference book, Dr. Garrigues' work has no superior, if an equal, in recent gynecological literature.

A MANUAL OF THERAPEUTICS. By A. A. Stevens, A.M., M.D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania; Demonstrator of Pathology in the Woman's Medical College, Philadelphia, etc. Philadelphia: W. B. Saunders. pp. 436.

This little volume is well up to date and as it includes a short account of all the recent remedies, it will be found a very convenient source from which either student or practitioner may make a rapid revisal of his knowledge of therapeutics. It certainly cannot take the place of the larger works upon the subject, and does not pretend to do so; but its systematic arrangement and consise form make it eminently useful for the purpose above stated. There are one or two inaccuracies which, while they may not be of very great importance, may, nevertheless, lead to confusion. The old diuretic pill of squills, digitalis, and blue mass, is described by the author as *Niemeyer's pill;* it may be true that Niemeyer introduced this combination, but the pill generally known as *Niemeyer's* consists of digitalis, quinine, and opium, and is most frequently used in the treatment of phthisis. We believe that the book will become popular.

A PRACTICAL TREATISE ON NERVOUS EXHAUSTION (NEURASTHENIA); ITS SYMPTOMS, NATURE, SEQUENCES, TREATMENT. By George M. Beard, A.M., M.D. Edited with notes and additions, by A. D. Rockwell, A.M., M.D., Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital. Third edition, enlarged. New York: E. B. Treat. pp. 262. Price, $2.75.

This work has been so long before the profession that it does not require any introduction. The change in the present edition essentially consists in the addition of a chapter upon the etiology and pathology of nervous exhaustion, in which the editor clearly shows the relation between neurasthenia and the competitive anxieties of business, and further demonstrates the fact that the greater prevalence of the malady in America, as compared with Europe, is due to climatic influences and not to primary differences in the individual, as the American in Europe can adapt himself to the ways of the country and live in a manner that would be absolutely impossible in America. The value of such observations is considerable, as they suggest lines of treatment, and account for the prevalence of the disorder in the United States.

A TREATISE ON HEADACHE AND NEURALGIA, INCLUDING SPINAL IRRITATION AND A DISQUISITION ON NORMAL AND MORBID SLEEP. By J. Leonard Corning, M.A., M.D., Consultant in Nervous Diseases to St. Francis Hospital; with an Appendix. Eye Strain, a Cause of Headache. By David Webster, M.D., Professor of Ophthalmology in the New York Polyclinic; Surgeon to the Manhattan Eye and Ear Hospital, etc. Illustrated. Third edition. New York: H. B. Treat. pp. 276. Price, $2.75.

In addition to the subjects mentioned in the title of the book, the author also discusses spinal irritation, sleep, and eye-strain as a cause of headache. The interesting feature in this edition is a chapter upon the condition of the action of remedies upon the brain. By this method the writer endeavors to obtain the concentrated influence of remedies upon the brain instead of a diffuse effect throughout the entire system. The method depends upon the contingency of the cerebral cortex upon the carotids and jugulars for its main blood supply; the rapidity with which medicaments are absorbed through the nasal mucous membrane and carried to the brain; the ease with which the cerebral circulation is retarded by pressing upon the jugulars. The nasal mucous membrane is cleansed with warm water, the medicament injected, and compression made on the jugulars by means of pneumatic cups. Patients treated by this method claim that relief is both more rapid and more prolonged. Certainly the method holds out considerable promise, and we would advise our readers to purchase the book and study the subject in detail.

ESSENTIALS OF PRACTICE OF MEDICINE; ARRANGED IN THE FORM OF QUESTIONS AND ANSWERS. PREPARED ESPECIALLY FOR STUDENTS OF MEDICINE. By Henry Morris, M.D., late Demonstrator Jefferson Medical College, Philadelphia; Visiting Physician to St. Joseph's Hospital, etc. With a very complete Appendix on the Examination of Urine, by Lawrence Wolff, M.D., Demonstrator of Chemistry, Jefferson Medical College. Colored (Vogel) Urine Scale and numerous Illustrations. Third edition, revised and enlarged by some three hundred Essential Formulæ, selected from the writings of the most Eminent Authorities of the Medical Profession. Collected and arranged by William M. Powell, M.D., Attending Physician to the Mercer House for Invalid Women, at Atlantic City, N. J., Saunders' Question-Compends, Nos. 8 and 9. Philadelphia: W. B. Saunders. pp. 374—48—66. Price, $2.00.

This volume is of the "Saunders' Question-Compend Series," and as it has reached a third edition within three years, there cannot be any doubt but that it has supplied a want of the medical student. The book is arranged in the form of questions and answers relating to the symptoms, physical signs, pathology, diagnosis, and treatment of the more common diseases, and is admirably adapted to the purpose of a student testing his own knowledge, and will also be found extremely useful in directing attention to the salient points in the subjects considered. In such a work we cannot expect the detail of a textbook, but there are some omissions which should be remedied in future editions: for example, in the treatment of dilated stomach, no reference is made to washing out the stomach, while in chronic gastritis, it is said that washing by means of the stomach-pump gives temporary relief, the siphon method, which is practically the only clinical method now in use, not being mentioned. The appendix on urinary analysis makes the volume one of our best clinical companions.

THE ART OF PRESERVING HEALTH; OUTLINES OF PRACTICAL HYGIENE, ADAPTED TO AMERICAN CONDITIONS. By C. Gilman Currier, M.D., Visiting Physician to the New York City Hospitals. New York: E. B. Treat, pp. vii 468. Price, $2.75.

A single volume of this size must not be expected to exhaust the subject in its present state of development. The work is written in language free from technicalities, and is well adapted for popular reading, More space (41 pages) is devoted to soil and climate than is usual in books of this scope, but the matter is interesting and valuable, and no one topic is excessively prolonged. It is impossible to criticise the author on all subjects treated, and we must therefore select some specimen passages. In regard to cemeteries, he differs from most other writers, though he acknowledges that the germs of tuberculosis and cholera, as well as those of anthrax, may survive for a long time, and may be brought to the surface by earth-worms. Few would assent to the following declaration: "In this country, as in Europe, the water of wells and springs in burying-grounds is usually found, on careful analysis, to be in every respect purer than the average drinking water that people use with safety." It is pointed out that ordinary sewer-air is less impure than the dusty air of streets in cities, and that the most dangerous constituent of sewer-gas is the illuminating gas which has escaped from the mains running near sewers. The author seems not to be acquainted with the unsavory emanations from the sewers of

San Francisco, which is other than hydrogen or ammonium sulphide, and if possible more offensive, and whose summer exuberance reconciles the citizens to the ocean gales. He allows small importance to the effect of ordinary sewage on streams, unless it contains disease germs. This view will be substantially correct until the population of our country becomes much more dense, and manufacturing establishments have increased in like degree; but the question has already become a serious one in some of the eastern States. He recommends treating sewage with milk of lime, and observes: "The lime takes up carbonic acid that is in the sewage, and thus causes the lime *that is already present as a bicarbonate* to be precipitated as insoluble lime carbonate." The milk of lime, if fresh, is not carbonated at all, and if bicarbonated, how could it take up more CO_2 and then become a lower carbonate? The omission of the italicised words would leave some sense in the statement. His remarks on sewage-irrigation are appropriate, and they will be particularly interesting to Californians. He estimates the value of sewage annually wasted, in the usual method of disposal, as high as $5 *per capita* of the population; but this cannot mean over and above the cost of applying it to the land. Hitherto there has been no pecuniary profit in most cases, but at Berlin and at Pullman, Illinois, it is said there is some return beyond interest on cost of plant and expense of administration. It is to be hoped that Los Angeles will soon settle the economic side of the question for California. After frankly expressing what we regard as the principal defects of this book, we wish to say, as a whole, that it is to be commended as convenient and valuable to the general reader who wishes information on a subject which intimately concerns the welfare of all.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held August 7, 1894, the following physicians, having complied with the law and the regulations of this Board, were unanimously granted certificates to practise medicine and surgery in this State:

William Burke. Los Angeles; Coll. Phys. and Surgs., Chicago, Ill., April 3, '94.
Sherman T. Davis, San Francisco; Med. Dept. Willamette Univ , Or., April 11, '85.
John C. Gosnell, Wellapa, Or.; Detroit Med. Coll., Mich., March 20, '88.
Howard Herrington, Santa Clara; Med. Dept. Univ. Mich., June 28, '94.
John Briggs Latta, San Diego; Med. Coll. of Ohio, March 3, '49.
Nicholas Molitor, San Francisco; Rush Med. Coll. Ill., March 31, '91.
Luther D. Scherer, Los Angeles; Chicago Med. Coll. Ill., March 16, '85.
George H. Steward, Marysville; Long Island Coll. Hosp., N. Y., June 14, '81.
Samuel Spencer Wallian, Helix; Bd. Regents, State of N. Y., May 29 '83.
Conrad Weil, San Francisco; Univ. of Bern, Switzerland, February 24, '90.
Joseph Suley Wheeler, Penryn; Coll. Phys. and Surgs., Edinburgh and Glasgow, Scotland, January 22, '91.
Chas. H. Whitman, Los Angeles; Coll. Phys. and Surgs., Chicago, Ill., March 25, '90.
Harrison Akers Wright, Klamath Falls, Or.; Med. Dept. Univ. Oregon, April 2, '88.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army, from July 21 to August 20, 1894.

Passed Assistant Surgeon W. F. Arnold, United States Navy, is relieved from duty with troops at Sacramento, California, and will return without delay to the Mare Island Navy Yard, California, and report to the commanding officer for further instructions. Par. 2, S. O. 81, Dept, of Cal., July 24, 1894.

In accordance with the provisions of paragraph 1662, army regulations, as amended by general orders No. 38, series of 1890, headquarters of the army, Lieutenant-Colonel William D. Wolverton, deputy surgeon-general, medical director, will proceed to and inspect the medical department at the following named posts: Vancouver Barracks, Wash.; Boise Barracks, Idaho: Fort Walla Walla, Wash.; Fort Sherman, Idaho, and Fort Spokane, Wash. Upon completion of this duty Lieutenant-Colonel Wolverton will return to these headquarters. Par, 4, S. O. 119, Dept. of the Columbia, July 30, 1894.

Lieutenant-Colonel Albert Hartstuff, deputy surgeon-general, medical director, is relieved from duty in this department, to take effect on the 3rd proximo, and will proceed to Chicago, Illinois, in obedience to paragraph 5, No. 148, headquarters of the army, adjutant-general's office. Par. 2, S. O. 66, Dept. of Cal., July 30, 1894.

The telegraphic instructions of this date to the commanding officer U. S. troops, Wallace, Idaho, directing Surgeon John D. Hall to return to his station, Fort Sherman, Idaho, and report to the commanding officer for duty, are made of record. Par. 2, S. O. 129, Dept. of the Columbia, August 16, 1894.

The telegraphic instructions of this date to the commanding officer Fort Sherman, Idaho, directing Assistant Surgeon William E. Purviance to proceed to Wallace, Idaho, and report to the commanding officer for duty with the troops in the field thereat, are made of record. Par. 3. S. O. 129. Dept. of the Columbia, August 16, 1894

Leave of absence for one month, to take place about October 1, 1894, with permission to apply for an extension of one month is granted First Lieutenant F. A. Winter, assistant surgeon.